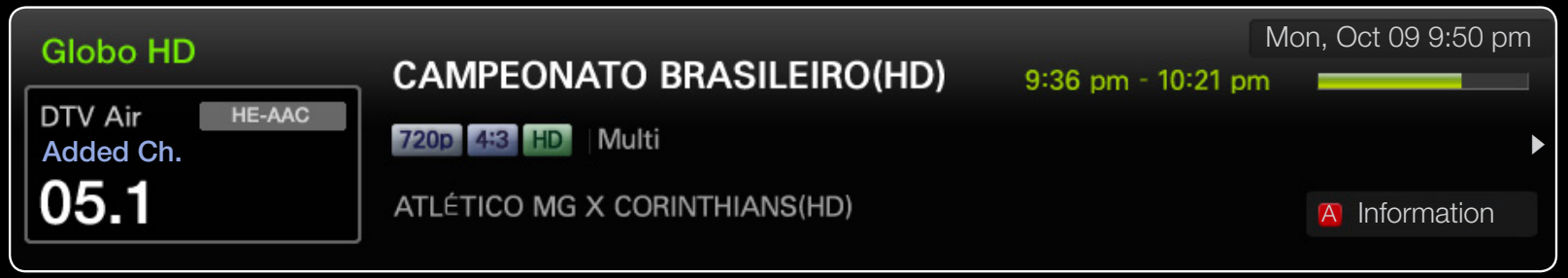
❑ Using the INFO button (Now & Next guide)

The display identifies the current channel and the status of certain audio-video settings.

The Now & Next guide shows daily TV program information for each channel according to the broadcasting time.

- Scroll ◄ ► to view information for a desired program while watching the current channel.

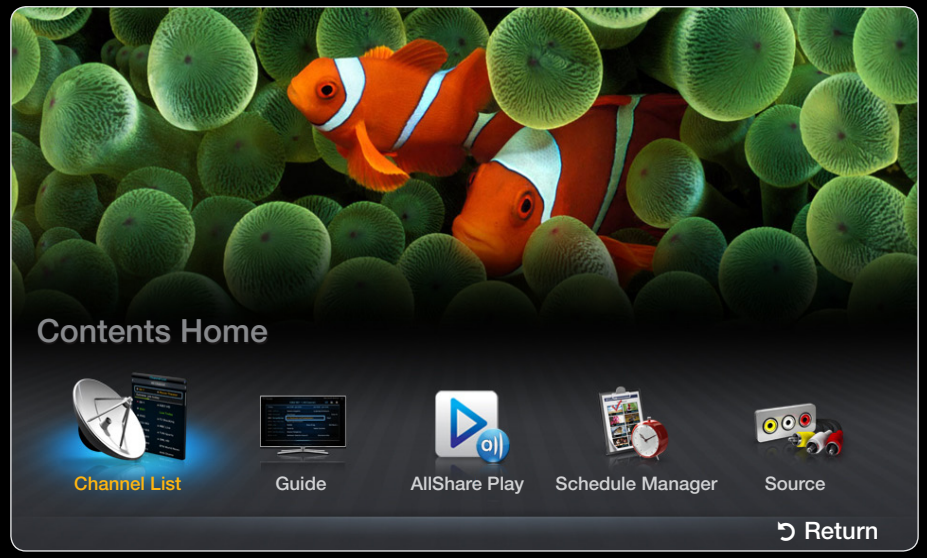


* It may differ depending on the country.

❑ Using Channel menu

MENU → Support → Contents Home → ENTER

Press the **CONTENT** button to select **Contents Home**, then select the desired menu. Each screen will be displayed.



* The displayed image may differ depending on the model.

Channel List

You can view channel information, **Added Ch.** or **Favorites 1-5**.

When you press the **CH LIST** button on the remote control, **Channel List** screen will be displayed at once.

- **Added Ch.**: Shows all added channels.
- **Favorites 1-5**: Show all favorite channels.

  Favorites 1-5 will be displayed when you set **Edit Favorites**.

  If you want to view favorites channels you added, press the **CH LIST** button and use ◀▶ (**CH Mode**) button to move **Favorites 1-5**.

Using the function buttons with the **Channel List**.

- (**Tools**): Displays the option menu.
- (**CH Mode / Channel**): Move to the **Favorites 1-5** when **Edit Favorites** is set.

  When you select the **Program View** in (**Tools**) menu, you can move to other channels using (**Channel**) button.

- (**Watch / Information**): Watches the channel you select. / Displays details of the selected program.
- (**Page**): Move to next or previous page.

How to use Schedule Viewing in Channel List (digital channels only)

When you set the **Schedule Viewing** in **Channel List**, you can only set the program in **Program View**.

1. Press the **CH LIST** button, then select a desired digital channel.
2. Press **TOOLS** button, and then select the **Program View**. The program list for that channel appears.
3. Press the ▲ / ▼ buttons to select the desired program, then press the **ENTER** (**Information**) button.
4. Select **Schedule Viewing**, then press the **ENTER** button when done.

If you want to cancel **Schedule Viewing**, follow steps 1 through 3. Select **Cancel schedule**.

Using Option Menu TOOLS

Set each channel using the **Channel List** menu options (**Program View, Edit Favorites, Lock/Unlock, Channel Name Edit, Delete, Information, Change Antenna, Edit Mode**). Option menu items may differ depending on the channel status.

1. Select a channel and press the **TOOLS** button.
2. Select a function and change its settings.

- **Program View** (digital channels only): Displays the program when digital channel is selected.
- **Edit Favorites** TOOLS: Set channels you watch frequently as favorites. Add or delete the selected channel in **Favorites 1-5**.
  1. Select the **Edit Favorites**, then press the **ENTER** button.
  2. Press the **ENTER** button to select **Favorites 1-5**, then press the **OK** button.

     One favorites channel can be added in several of favorites among **Favorites 1-5**.

- **Lock/Unlock**: Lock a channel so that the channel cannot be selected and viewed.

  This function is available only when the **Channel Lock** is set to **On**.

  The PIN input screen appears. Enter your 4-digit PIN, the default of which is “0-0-0-0”. Change the PIN using the **Change PIN** option.

- **Channel Name Edit** (analog channels only): Assign your own channel name.
- **Delete**: Delete a channel from the channel list.
- **Information**: Displays details of the selected program.

  Press the **Watch** to switch the channel directly.

- **Change Antenna**: Switches to **Air** or **Cable**.
- **Edit Mode**: You can select desired channels and edit it. For detailed information about using **Edit Mode**, refer to "Using Option Menu in Edit Mode".

Using Option Menu in Edit Mode TOOLS

Press the ◄/► button to select the channel mode (**Added Ch.** / **All Channels** / **Favorites 1-5**).

- **Added Ch.**: Shows all added channels.
- **All Channels**: Shows all currently available channels.
- **Favorites 1-5**: Shows all favorite channels. **Favorites 1-5** will be displayed when you set **Edit Favorites**.

Set each channel using the menu options (**Edit Favorites, Lock/Unlock, Add/Delete, Deselect, Select All**). The option menu items that appear may differ depending on the channel status and type.

1. Press the **TOOLS** button in **Channel List** screen, then select the **Edit Mode**. A check box appears to the left of the channel.

2. Press the ▲/▼ buttons to select the desired channel, and then press **ENTER** button. The (✓) mark indicates the channel you've selected.

   You can select more than one channel.

   Press **ENTER** button again to deselect the channel.

3. Press the **TOOLS** button, then select a function and change its settings.

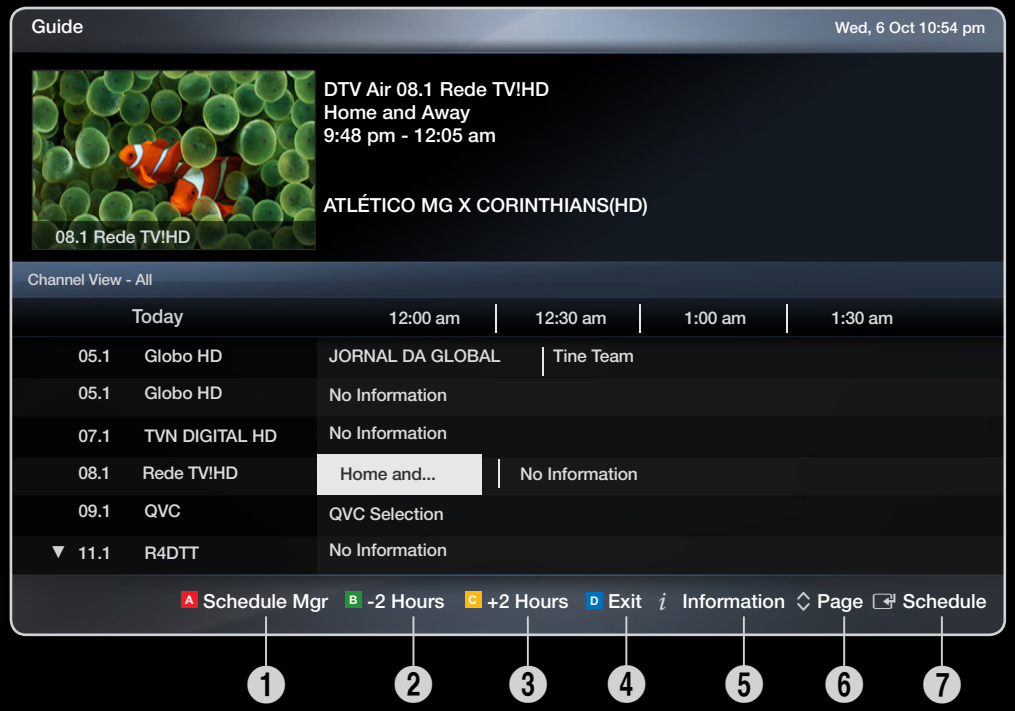
- **Edit Favorites**: Set the selected channels you watch frequently as favorites.

  The **Edit Favorites** screen has five groups (**Favorites 1**, **Favorites 2**, etc.). You can add a favorite channel to any one of the groups. Press the ▲/▼ buttons to select a group.

- **Lock/Unlock**: Lock a channel so that the channel cannot be selected and viewed.
  - This function is available only when the **Channel Lock** is set to **On**.
  - The PIN input screen appears. Enter your 4-digit PIN, the default of which is “0-0-0-0”. Change the PIN using the **Change PIN** option.
- **Add/Delete**: Delete or add a channel to display the channels you want.
  - The **Add** menu is only available in **All Channels**.
  - The **Add** menu only appears for deleted channels.
  - A gray-colored channel indicates the channel has been deleted.
- **Deselect**: Deselect the selected channels.
- **Select All**: Select all the channels in the channel list.

Guide

The EPG (Electronic Program Guide) information is provided by broadcasters. Using program schedules provided by broadcasters, you can specify programs you want to watch in advance so that the channel automatically changes to the selected program channel at the specified time. Program entries may appear blank or out of date depending on a channel status.



* It may differ depending on the country.

1. A Red (**Schedule Mgr**): Moves to the **Booking List** in **Schedule Manager**.
2. B Green (**-2 Hours**): Viewing the list of programs to be broadcasted before 2 hours.
3. C Yellow (**+2 Hours**): Viewing the list of programs to be broadcasted after 2 hours.
4. D Blue (**Exit**): Exits the guide.
5. *i* (**Information**): Displays details of the selected program.
6. ⇕ (**Page**): Move to previous or next page.
7. ⏎ (**Watch / Schedule**)
   - When selecting the current program, you can watch the selected program.
   - When selecting the future program, you can reserve to watch the selected program. To cancel the schedule, press the **ENTER** ⏎ button again and select **Cancel schedule**.

Schedule Manager

MENU → Support → Contents Home→ Schedule Manager → ENTER

You can set a desired channel to be displayed automatically at the intended time. In addition, you can view, modify or delete a channel you have reserved to watch. Set the current time first to use this function.

Using Option Menu TOOLS

Set each channel using the menu options (**Cancel schedule, Edit Schedule, Manually Schedule, View Guide**).

1. Press the **TOOLS** button to select the **Manually Schedule**.

   You can press the A (**Manually Schedule**) directly on the **Schedule Manager** screen.

2. Press the ◄/►/▲/▼ button to set the **Antenna, Channel, Repeat, Date, Start Time**.

   - **Antenna**: Select the desired broadcasting signal.
   - **Channel**: Select the desired channel.

- **Repeat**: Select **Once, Manual, Sat~Sun, Mon~Fri** or **Everyday** to set at your convenience. If you select **Manual**, you can set the day you want.

  The (✓) mark indicates the day you've selected.

- **Date**: You can set desired date.

  It is available when you select **Once** in **Repeat**.

- **Start Time**: You can set start time you want.

If you want to edit or cancel the schedule, select the reserved schedule on the **Booking List**. Press the **TOOLS** button and select the **Edit Schedule** or **Cancel schedule**.

If you select the **View Guide**, you can see the **Guide** screen.

❑ Memorizing channels

MENU → Channel → ENTER

■ Antenna (Air / Cable) TOOLS

Before your television can begin memorizing the available channels, you must specify the type of signal source that is connected to the TV (i.e. an **Air** or a **Cable** system).

Auto Program

Scans for a channel automatically and stores in the TV.

- **Air**: Air antenna signal.
- **Cable**: Cable antenna signal.

NOTE

- Automatically allocated program numbers may not correspond to actual or desired program numbers. If a channel is locked, the PIN input window appears.
- If the antenna is connected to ANT 2 IN (CABLE), select **Cable** and if it is connected to ANT 1 IN (AIR), select **Air**.
- If both ANT 1 IN and ANT 2 IN are connected, select both **Air** and **Cable**.

How to Stop Auto Programming

1. Press the **ENTER** ↵ button.
2. A message will ask **Stop Auto Program?** Select **Yes** by pressing the ▲ or ▼ button.
3. Press the **ENTER** ↵ button.

❑ Other Features

MENU → Channel → ENTER

■ Fine Tune

(analog channels only)

If the reception is clear, you do not have to fine tune the channel, as this is done automatically during the search and store operation. If the signal is weak or distorted, fine tune the channel manually.

- Select **Fine Tune** in the **Channel** menu.

Fine tuned channels that have been saved are marked with an asterisk “*” on the right side of the channel number in the channel banner.

To reset the fine-tuning, select **Reset**.

Crosstalk Noise Reduction (Off / On)

(analog channels only)

Reduce diagonal noise in picture caused by the crosstalk of signals.

Color System (Auto / PAL-M / PAL-N / NTSC)

(analog channels only)

Normally the TV can receive image and sound with good quality in **Auto** mode. This mode detects the color signal sources automatically. If the color implementation is unsatisfactory, select any of **PAL-M, PAL-N** or **NTSC**.

❑ Changing the Preset Picture Mode

■ Picture Mode TOOLS

MENU → Picture → Picture Mode → ENTER

Select your preferred picture type.

When connecting a PC, you can only make changes to the **Entertain** and **Standard**.

- **Dynamic**: Suitable for a bright room.
- **Standard**: Suitable for a normal environment.
- **Natural** for LED 5000, 6000 series: Suitable for an eye comfortable display.
- **Movie**: Suitable for watching movies in a dark room.
- **Entertain**: Suitable for watching movies and games.

  It is only available when connecting a PC.

❑ Adjusting Picture Settings

■ Backlight for LED TV / Cell Light for PDP TV / Contrast / Brightness / Sharpness / Color / Tint (G/R)

Your television has several setting options for picture quality control.

NOTE

- When connecting a PC, you can only make changes to **Backlight** for LED TV **/ Cell Light** for PDP TV**, Contrast, Brightness** and **Sharpness**.
- Settings can be adjusted and stored for each external device connected to the TV.
- Lowering picture brightness reduces power consumption.

Screen Adjustment

MENU → Picture → Screen Adjustment → ENTER

Set the various picture options such as picture size and aspect ratio.

- **Picture Size**: Your cable box/satellite receiver may have its own set of screen sizes as well. However, we highly recommend you use 16:9 mode most of the time.

  16:9: Sets the picture to 16:9 wide mode.

  Zoom1: Use for moderate magnification.

  Zoom2: Use for a stronger magnification.

  Wide Fit: Enlarges the aspect ratio of the picture to fit the entire screen.

  4:3: Sets the picture to basic (4:3) mode.

  Do not watch in 4:3 format for a long time. Traces of borders displayed on the left, right and center of the screen may cause image retention (screen burn) which are not covered by the warranty.

Screen Fit: Displays the full image without any cut-off when HDMI (720p / 1080i / 1080p) or Component (1080i / 1080p) signals are input.

Smart View 1 for LED 5000, 6000 series: Reduces original screen by 50%.

Smart View 2 for LED 5000, 6000 series: Reduces original screen by 25%.

NOTE

- **Smart View 1** is enabled only in HDMI mode.
- **Smart View 2** is enabled only in DTV and HDMI modes.
- The picture size can vary depending on the input resolution when content is played using **Videos** under **Media Play**.

- **Position**: Adjust the picture position. It is only available in **Zoom1**, **Zoom2**, **Wide Fit** or **Screen Fit**.

  After selecting **Zoom1**, **Zoom2** or **Wide Fit**, select **Position**. Follow the steps below in the **Position** screen.

  1. Select the **Position**, press the **ENTER** button.
  2. Select the **Position** button, and then press **ENTER**.
  3. Press the ▲ or ▼ button to move the picture up or down.
  4. Press the **ENTER** button.

- After selecting **Screen Fit** in HDMI (1080i/1080p) or Component (1080i/1080p) mode, you may need to center the picture. Select **Position**, then follow the steps below in the **Position** screen.

  1. Select the **Position**, press the **ENTER** button.
  2. Select the **Position** button, and then press **ENTER**.
  3. Press the ▲, ▼, ◄ or ► button to move the picture.
  4. Press the **ENTER** button.

- If you want to reset the position you adjusted, select **Reset** in the **Position** screen. The picture will be set to its default position.

- HD (High Definition): 16:9 - 1080i/1080p (1920x1080), 720p (1280x720)
- Settings can be adjusted and stored for each external device you have connected to an input on the TV.

Input Source	Picture Size
ATV, AV	**16:9, Zoom1, Zoom2, 4:3**
DTV (720p)	**16:9, Wide Fit, 4:3**
DTV (1080i, 1080p)	**16:9, Wide Fit, 4:3, Screen Fit, Smart View 2**
Component (480i, 480p, 576i, 576p)	**16:9, Zoom1, Zoom2, 4:3**
Component (720p)	**16:9, Wide Fit, 4:3**
Component (1080i, 1080p)	**16:9, Wide Fit, 4:3, Screen Fit**
HDMI (720p, 1080i, 1080p)	**16:9, Wide Fit, 4:3, Screen Fit, Smart View 1, Smart View 2**

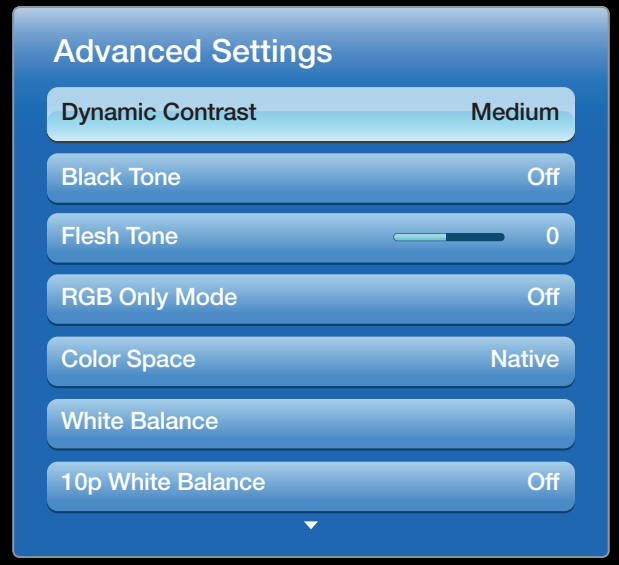
❑ Changing the Picture Options

■ Advanced Settings

MENU → Picture → Advanced Settings → ENTER

(available in **Standard / Movie** mode)

- **Dynamic Contrast (Off / Low / Medium / High)**: Adjust the screen contrast.
- **Black Tone (Off / Dark / Darker / Darkest)**: Select the black level to adjust the screen depth.
- **Flesh Tone**: Emphasize pink “Flesh Tone”.
- **RGB Only Mode (Off / Red / Green / Blue)**: Displays the **Red**, **Green** and **Blue** color for making fine adjustments to the hue and saturation.



* The displayed image may differ depending on the model.

- **Color Space (Auto / Native / Custom** for LED 6000 series**)**: Adjust the range of colors available to create the image.

  To adjust **Color**, **Red**, **Green**, **Blue** and **Reset**, set **Color Space** to **Custom**.

- **White Balance**: Adjust the color temperature for a more natural picture.

  R-Offset / G-Offset / B-Offset: Adjust each color's (red, green, blue) darkness.

  R-Gain / G-Gain / B-Gain: Adjust each color's (red, green, blue) brightness.

  Reset: Resets the **White Balance** to its default settings.

- **10p White Balance (Off / On)** for LED 6000 series: Controls the white balance in 10 point interval by adjusting the red, green, and blue brightness.

  Available when the picture mode is set to **Movie** and when the external input is set to all input.

  Some external devices may not support this function.

  Interval: Select interval to adjust.

  Red: Adjust the red level.

  Green: Adjust the green level.

  Blue: Adjust the blue level.

  Reset: Resets the **10p White Balance** to its default settings.

- **Gamma**: Adjust the primary color intensity.
- **Expert Pattern (Off / Pattern 1 / Pattern 2)** for LED 6000 series: By running the **Expert Pattern** function, the picture can be calibrated without a generator or filter. If the OSD menu disappears or a menu other than the **Picture** menu is opened, the calibration is saved and the **Expert Pattern** window disappears.

  While the **Expert Pattern** is running, sound is not output.

  Only enabled on DTV / Component / HDMI.

- **xvYCC (Off / On)** for LED 6000 series: Setting the **xvYCC** mode on increases detail and color space when watching movies from an external device (e.g. DVD player) connected to the HDMI or Component IN jacks.

  Available when the picture mode is set to **Movie** and when the external input is set to HDMI or Component.

  Some external devices may not support this function.

- **Motion Lighting (Off / On)**: Reduce power consumption by brightness control adapted motion.
  - This function is not supported in **3D** mode. for PDP 490 series
  - When you change the **Backlight** for LED TV / **Cell Light** for PDP TV, **Contrast** or **Brightness**, the TV sets **Motion Lighting** to **Off**.
  - Only available in **Standard** mode.

Picture Options

MENU → Picture → Picture Options → ENTER

When connecting a PC, you can only make changes to the **Color Tone**.

- **Color Tone (Cool / Standard / Warm1 / Warm2)**

  Warm1 or **Warm2** will be deactivated when the picture mode is **Dynamic**.

  Settings can be adjusted and stored for each external device connected to an input on the TV.

* The displayed image may differ depending on the model.

- **Digital Noise Filter (Off / Low / Medium / High / Auto / Auto Visualization)**: If the broadcast signal received by your TV is weak, you can activate the **Digital Noise Filter** feature to reduce any static and ghosting that may appear on the screen.

  When the signal is weak, try other options until the best picture is displayed.

  Auto Visualization: When changing analog channels, displays signal strength.

  Only available for analog channels.

  When the **INFO** button is pressed, the signal strength bar is displayed.

  When bar is green, you are receiving the best possible signal.

- **MPEG Noise Filter (Off / Low / Medium / High / Auto)**: Reduces MPEG noise to provide an improved picture quality.

- **HDMI Black Level (Low / Normal)**: Selects the black level on the screen to adjust the screen depth.

  Available only in HDMI mode (RGB signals).

- **Film Mode (Off / Auto1 / Auto2)**: Sets the TV to automatically sense and process film signals from all sources and adjusts the picture for optimum quality.

  Available in TV, AV, COMPONENT (480i / 1080i) and HDMI (1080i).

  If the screen does not seem natural, change its option to **Off / Auto1/ Auto2** in **Film Mode**.

- **Auto Motion Plus (Off / Clear / Standard / Smooth / Custom / Demo)** for LED 6000 series : Enhances motion in fast moving scenes.

  The info screen on your TV displays the resolution and frequency of the incoming video signal (60Hz). This displayed frequency is not what the TV is displaying by using the **Auto Motion Plus** function.

  If noise occurs on the screen, please set up the **Auto Motion Plus** to **Off**. If **Auto Motion Plus** is **Custom**, you can set up the **Blur Reduction**, **Judder Reduction** or **Reset** manually.

  Blur Reduction: Adjust blur reduction level of video sources.

  Judder Reduction: Adjust judder reduction level of video sources with film signals.

  Reset: Restore settings to default values.

- **LED Motion Plus (Off / On)** for LED 5000, 6000 series : Removes drag from fast scenes with a lot of movement to provide a clear picture.

  It will be deactivated when the picture mode is set to **Natural**.

  The screen may become slightly darker when you play **LED Motion Plus**.

Reset Picture (Yes / No)

Resets your current picture mode to its default settings.

❑ Changing the Preset Sound Mode

MENU → Sound → Sound Mode → ENTER

■ Sound Mode TOOLS

If **Speaker Select** is set to **External Speaker**, **Sound Mode** is disabled.

- **Standard**: Selects the normal sound mode.
- **Music**: Emphasizes music over voices.
- **Movie**: Provides the best sound for movies.
- **Clear Voice**: Emphasizes voices over other sounds.
- **Amplify**: Increase the intensity of high-frequency sounds to allow a better listening experience for the hearing impaired.

❑ Sound Settings

MENU → Sound → Sound Effect → ENTER

■ Sound Effect

(standard sound mode only)

Use the up and down arrow keys to select an option, and then press **ENTER**.

If **Speaker Select** is set to **External Speaker**, **Sound Effect** is disabled.

- **SRS TruSurround HD (Off / On)** TOOLS

  This function provides a virtual 5.1 channel surround sound experience through a pair of speakers or headphones using HRTF (Head Related Transfer Function) technology.

- **SRS TruDialog (Off / On)**

  This function allows you to increase the intensity of a voice over background music or sound effects so that dialog can be heard more clearly.

- **Equalizer**

  Use **Equalizer** to customize sound setting for each speaker.

  Balance L/R: Adjusts the balance between the right and left speaker.

  100Hz / 300Hz / 1kHz / 3kHz / 10kHz (Bandwidth Adjustment): Adjusts the level of specific bandwidth frequencies.

  Reset: Resets the equalizer to its default settings.

❑ Adjusting Sound Settings

■ Broadcast Audio Options

MENU → Sound → Broadcast Audio Options → ENTER

- Audio Language TOOLS

  (digital channels only)

  Change the default value for audio languages.

  The available language may differ depending on the broadcast.

- **Multi-Track Sound (MTS)** TOOLS

  (analog channels only)

  Mono: Choose for channels that are broadcasting in mono or if you are having difficulty receiving a stereo signal.

  Stereo: Choose for channels that are broadcasting in stereo.

  SAP: Choose to listen to the Separate Audio Program, which is usually a foreign-language translation.

  Depending on the particular program being broadcast, you can listen to **Mono, Stereo** or **SAP**.

SPDIF Output

SPDIF (Sony Philips Digital InterFace) is used to provide digital sound, reducing interference going to speakers and various digital devices such as a DVD player.

- **Audio Format**: You can select the Digital Audio output (SPDIF) format. The available Digital Audio output (SPDIF) format may differ depending on the input source.

  By connecting to 5.1ch speakers in a dolby digital setup, maximize your interactive 3D sound experience.

- **Audio Delay**: Correct audio-video mismatch, when watching TV or video, and listening to digital audio output using an external device such as an AV receiver (0ms ~ 250ms).

Speaker Settings

- **Speaker Select (External Speaker / TV Speaker)**

  A sound echo may occur due to a difference in decoding speed between the main speaker and the audio receiver. In this case, set the TV to **External Speaker**.

  When **Speaker Select** is set to **External Speaker**, the volume and **MUTE** buttons will not operate and the sound settings will be limited.

  When **Speaker Select** is set to **External Speaker**, you should use these settings.

  - **TV Speaker**: Off, **External Speaker**: On

  When **Speaker Select** is set to **TV Speaker**, you should use these settings.

  - **TV Speaker**: On, **External Speaker**: On

  If there is no video signal, both speakers will be mute.

- **Auto Volume (Off / Normal / Night)**

  To equalize the volume level on each channel, set to **Normal**.

  Night: This mode provides an improved sound experience compared to **Normal** mode, making almost no noise. It is useful at night.

  To use the volume control on the source device connected to the TV, set **Auto Volume** to **Off** on the TV. Otherwise, a change to the volume control of the source device may not be applied.

Reset Sound (Yes / No)

Reset all sound settings to the factory defaults.

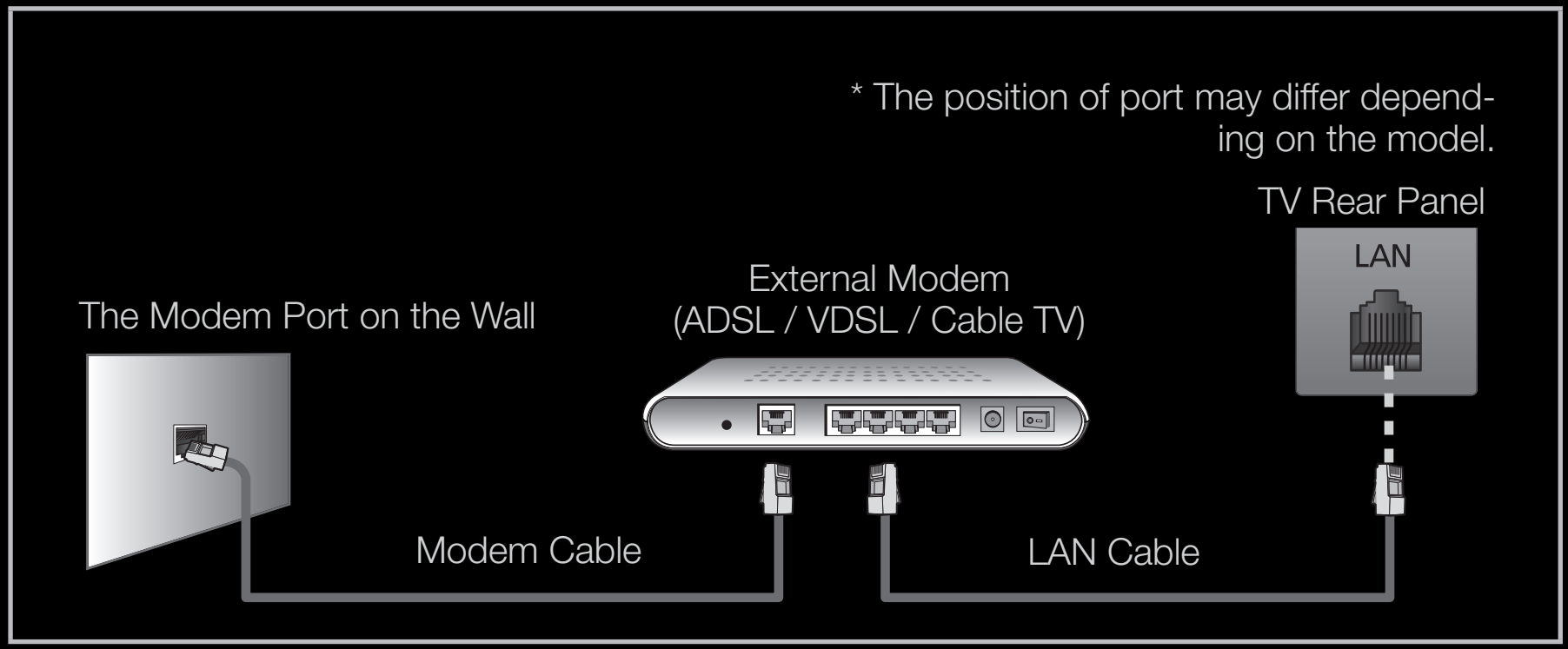
❑ Connecting to the Network for PDP 490 series

For LED TVs, network function is not supported depending on the country.

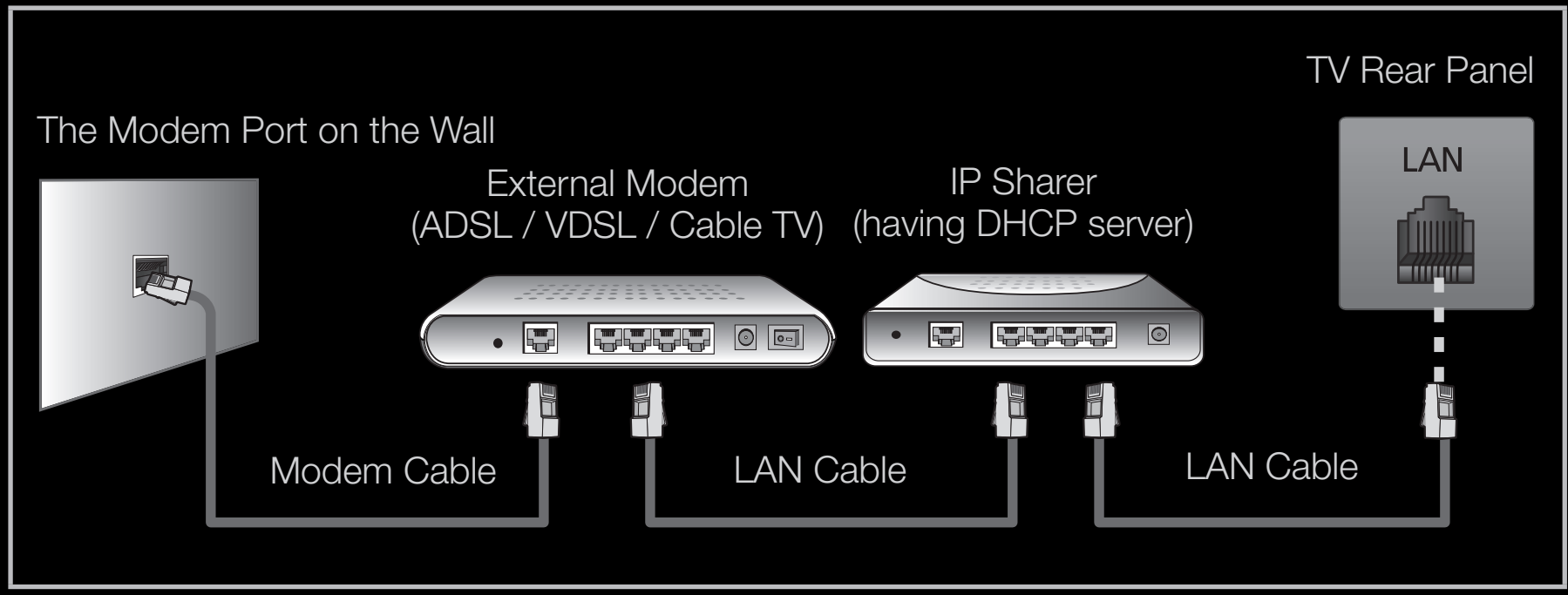
■ Wired Network Connection

You can attach your TV to your LAN using cable in three ways:

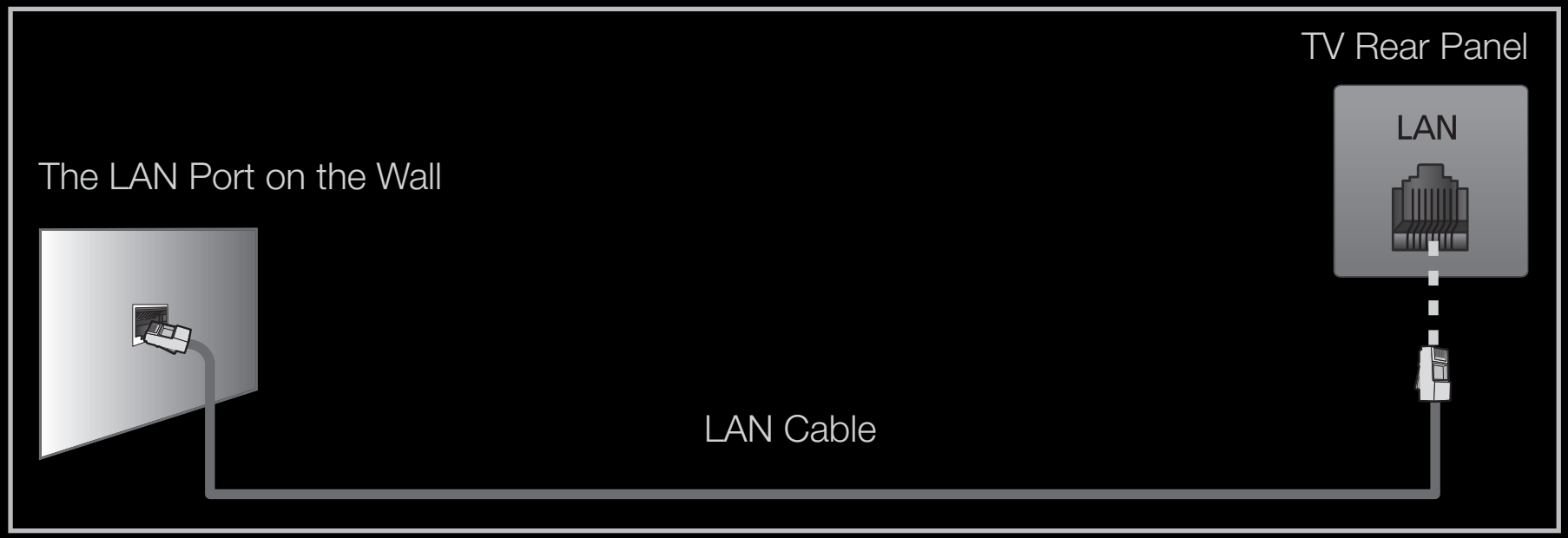
- You can attach your TV to your LAN by connecting the LAN port on the back of your TV to an external modem using a LAN cable. See the diagram below.


* The position of port may differ depending on the model.
TV Rear Panel
LAN
External Modem
(ADSL / VDSL / Cable TV)
The Modem Port on the Wall
Modem Cable
LAN Cable

- You can attach your TV to your LAN by connecting the LAN port on the back of your TV to a IP Sharer which is connected to an external modem. Use LAN cable for the connection. See the diagram below.



- Depending on how your network is configured, you may be able to attach your TV to your LAN by connecting the LAN port on the back of your TV directly to a network wall outlet using a LAN cable. See the diagram below. Note that the wall outlet is attached to a modem or router elsewhere in your house.



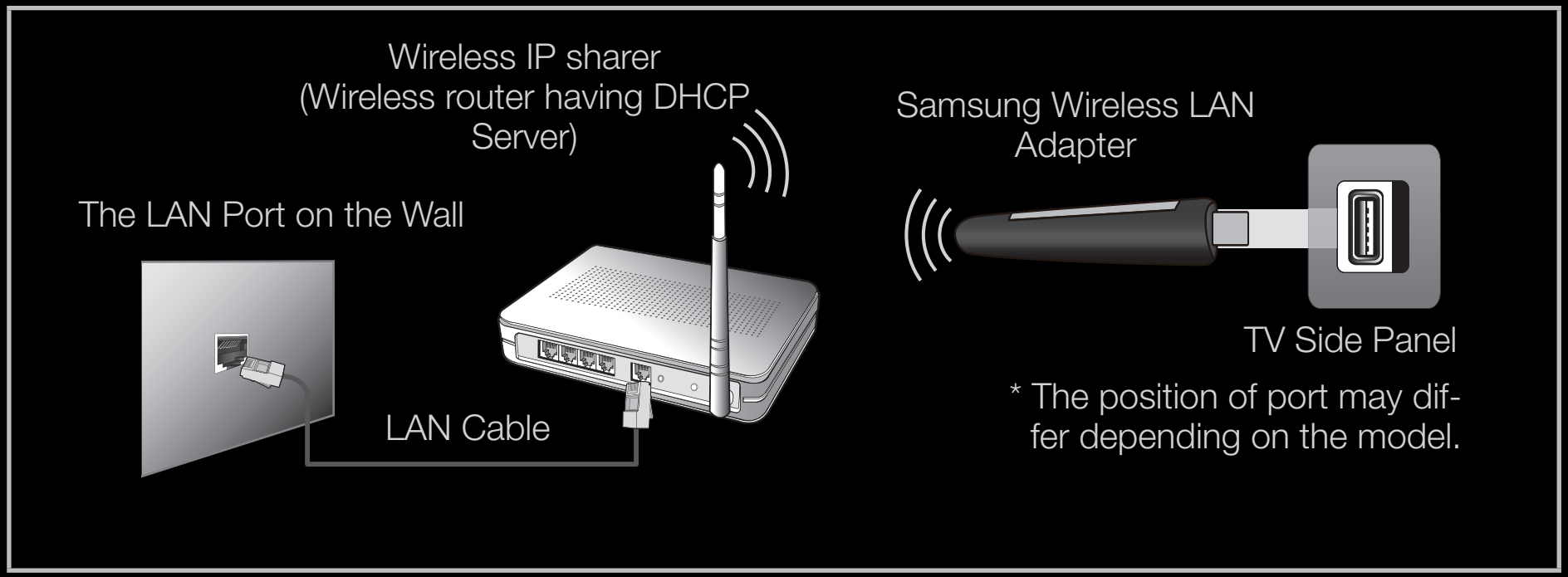
- If your network requires a Dynamic IP address, you should use an ADSL modem or router that supports Dynamic Host Configuration Protocol (DHCP).

Modems and routers that support DHCP automatically provide the IP address, subnet mask, gateway, and DNS values your TV needs to access the Internet so you do not have to enter them manually. Most home networks use a Dynamic IP address. Some networks require a Static IP address. If your network requires a Static IP address, you must enter the IP address, subnet mask, gateway, and DNS values manually on your TV's Cable Setup Screen when you set up the network connection. To get the IP address, subnet mask, gateway, and DNS values, contact your Internet Service Provider (ISP). If you have a Windows computer, you can also get these values through your computer.

- You can use ADSL modems that support DHCP if your network requires a Static IP address. ADSL modems that support DHCP also let you use Static IP addresses.
- It is not supported when the network speed is below or equal to 10Mbps.
- Use Cat 5(*STP Type) cable for the connection. (*Shielded Twist Pair)

Wireless Network Connection

To connect your TV to your network wireless, you need a wireless router or modem and a Samsung Wireless LAN Adapter (WIS09ABGNX, WIS12ABGNX), which you connect to your TV's back or side panel USB port. See the illustration below.


Wireless IP sharer
(Wireless router having DHCP Server)
Samsung Wireless LAN Adapter
The LAN Port on the Wall
TV Side Panel
LAN Cable
* The position of port may differ depending on the model.

Samsung's Wireless LAN adapter is sold separately and is offered by select retailers and Ecommerce sites. Samsung's Wireless LAN adapter supports the IEEE 802.11a/b/g and n communication protocols. Samsung recommends using IEEE 802.11n. When you play video over a network connection, the video may not be played smoothly.

NOTE

- You must use the "Samsung Wireless LAN Adapter" (WIS09ABGNX, WIS12ABGNX) to use a wireless network.
- Samsung Wireless LAN Adapter and the USB extension Cable are sold separately and are offered by select retailers and Ecommerce sites.

- To use a wireless network, your TV must be connected to a wireless IP sharer (either a router or a modem). If the wireless IP sharer supports DHCP, your TV can use a DHCP or static IP address to connect to the wireless network.
- Select a channel for the wireless IP sharer that is not currently being used. If the channel set for the wireless IP sharer is currently being used by another device nearby, this will result in interference and communication failure.
- If you apply a security system other than the systems listed below, it will not work with the TV.

- If HIGH PURE THROUGHPUT (Greenfield) 802.11n mode is selected and the Encryption type is set to WEP or TKIP for your wireless router, Samsung TVs will not support a connection in compliance with new Wi-Fi certification specifications.
- If your wireless router supports WPS (Wi-Fi Protected Setup), you can connect to the network via PBC (Push Button Configuration) or PIN (Personal Identification Number). WPS will automatically configure the SSID and WPA key in either mode.

- If your router, modem, or device is not certified, it may not connect to the TV via the “Samsung Wireless LAN Adapter”.
- Ensure the TV is turned off before you connect the Samsung Wireless LAN Adapter.
- Connection Methods: You can setup the wireless network connection like below.
  - Auto Setup (Using the Auto Network Search function)
  - Manual Setup
  - **WPS(PBC)**
  - **Wi-Fi Direct**
- The Samsung Wireless LAN Adapter may not be recognized when using a connection via a USB hub or via a USB extension cable other than the cable supplied.

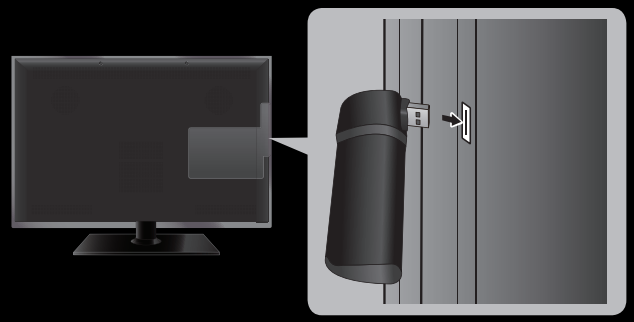
Notice

The picture may appear corrupted or have static for some channels when the TV is connected to the Samsung Wireless LAN Adapter. In such a case, establish a connection using one of the following methods or connect the Samsung Wireless LAN Adapter using a USB cable in a place that is not affected by radio interference.

Method 1

Connect using the USB right angle adapter. To connect the Samsung Wireless LAN Adapter using the USB right angle adapter, follow these steps:

1. Connect the USB right angle adapter to the Samsung Wireless LAN Adapter.
2. Connect the other end of the right angle adapter to the USB port.



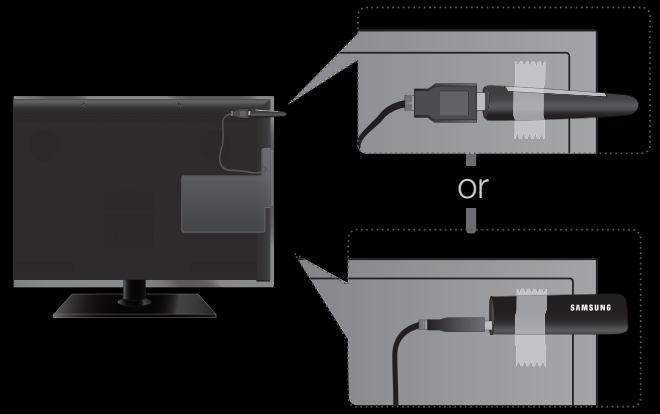
* The position of port may differ depending on the model.

Method 2

Connect via an extension cable

To reconnect the Samsung Wireless LAN Adapter using the extension cable, follow these steps:

1. Connect the extension cable to the USB port.
2. Connect the extension cable and Samsung Wireless LAN Adapter.
3. Attach the Samsung Wireless LAN Adapter to the back of the TV near the top, using double-sided adhesive tape.



* The position of port may differ depending on the model.

The Samsung Wireless LAN Adapter should be installed in an interference-free area in order to avoid interference between the adapter and tuner.

Network Settings

MENU → Network → Network Settings → ENTER

Set the network connection to use AllShare Play and perform software upgrade.

For detailed settings for wired network, refer to the "Setting the Wired Network", and for detailed settings for wireless network, refer to the "Setting the Wireless Network" in this manual.

Network Status

MENU → Network → Network Status → ENTER

You can check the current network and Internet status.

The check list for wired network connection failure

When wired network connection failed, try to apply the following information to each issue.

Issues	Solutions and Explanations
No network cable found.	• Check that your network cable is plugged in. • If it is connected, make sure that the router is turned on; if it is on, try turning it off and on again.
IP auto setting failed.	Try the following to set your IP address automatically or set your IP address manually by selecting **IP Settings**. • Ensure DHCP server is enabled on router and unplug and re-plug-in the router. • Contact your Internet Service Provider for more information.

Issues	Solutions and Explanations
Unable to connect to the network.	• Check if your IP address is set correctly in **IP Settings**. • Contact your Internet Service Provider for more information.
Connected to your local network, but cannot connect to the Internet.	• Check your Internet LAN cable is connected correctly to LAN port of router. • Check the DNS settings in **IP Settings**. • If the problem persists, contact your Internet Service Provider to access the Internet.
Network setup complete, but cannot connect to the Internet.	• Confirm that your router is connected to the Internet. • If the problem persists, contact your Internet Service Provider to access the Internet.

The check list for wireless network connection failure

When wireless network connection failed, try to apply the following information to each issue.

Issues	Solutions and Explanations
Wireless network connection failed.	• No wireless router selected. Go to **Network Settings** to select your router.
Unable to connect to wireless router.	• Check that the router is turned on, and if it is on, try turning it off and on again. • Check if you need to enter a security key to use the router.
IP auto setting failed.	• Try the following to set your IP address automatically or set your IP address manually by selecting **IP Settings**. • Ensure DHCP server is enabled on router and unplug and re-plug-in the router. • Check if you need to enter a security key to use the router. • Contact your Internet Service Provider for more information.

Issues	Solutions and Explanations
Unable to connect to the network.	• Check if your IP address is set correctly in **IP Settings**. • Check if you need to enter a security key to use the router. • Contact your Internet Service Provider for more information.
Connected to your local network, but cannot connect to the Internet.	• Check your Internet LAN cable is connected correctly to LAN port of router. • Check the DNS settings in **IP Settings**. • If the problem persists, contact your Internet Service Provider to access the Internet.
Network setup complete, but cannot connect to the Internet.	• Confirm that your router is connected to the Internet. • If the problem persists, contact your Internet Service Provider to access the Internet.

❑ Setting the Wired Network for PDP 490 series

■ Wired Network Setup (Auto)

When connecting the LAN Cable, the screen pop-up appears directly to set wired network.

Use the Automatic Network Setup when connecting your TV to a network that supports DHCP. To set up your TV's cable network connection automatically, follow these steps:

How to set up automatically

1. Go to **Network Settings** screen. (**Network** → **Network Settings**)
2. Select **Start**.
3. The network connection screen appears, and network setting is done.

Network Settings
Network cable connected.
Press Start to configure your wired network settings.
Start
Cancel
If you want to connect to your wireless network, plug in a Samsung Wireless LAN Adapter.

- If it fails to set automatically, check the connection of LAN port.
- If you cannot find network connection values or if you want to set connection manually, set it to Manual. Refer to following “How to set up manually”.

Wired Network Setup (Manual)

Use the Manual Network Setup when connecting your TV to a network that requires a Static IP address.

Getting the Network Connection Values

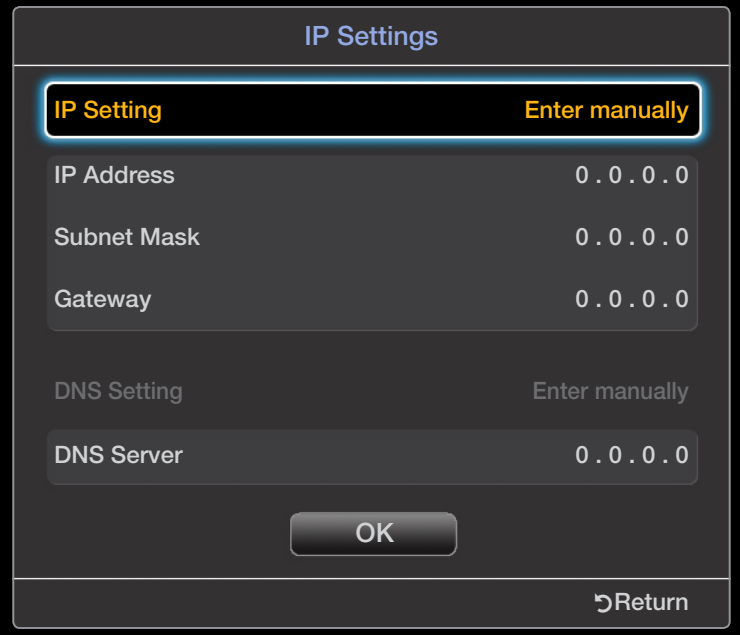
To get the Network connection values on most Windows computers, follow these steps:

1. Right click the Network icon on the bottom right of the screen.
2. In the pop-up menu that appears, click Status.
3. On the dialog that appears, click the Support tab.
4. On the Support Tab, click the Details button. The Network connection values are displayed.

How to set up manually

To set up your TV's cable network connection manually, follow these steps:

1. Follow Steps 1 through 2 in the "How to set up automatically" procedure.
2. Select the **IP Settings** on network connection screen.
3. Set **IP Setting** to **Enter manually**.
4. Press the ▼ button to go to the first entry field.



5. Enter the **IP Address, Subnet Mask, Gateway**, and **DNS Server** values. Use the number buttons to enter numbers and the arrow buttons to move from one entry field to another.
6. When done, select the **OK**.
7. The network connection screen appears, and network setting is done.

❑ Setting the Wireless Network for PDP 490 series

■ Wireless Network Setup (Auto)

Most wireless networks have an optional security system that requires devices that access the network to transmit an encrypted security code called an Access or Security Key. The Security Key is based on a Pass Phrase, typically a word or a series of letters and numbers of a specified length you were asked to enter when you set up wireless security for your wireless network. If you use this method of setting up the network connection, and have a Security Key for your wireless network, you will have to enter the Pass Phrase during the setup process.

When connecting Samsung Wireless LAN Adapter, the screen pop-up appears directly to set wireless network.

How to set up automatically

1. Go to **Network Settings** screen.
2. Select **Start**.
3. The Network function searches for available wireless networks. When done, it displays a list of the available networks.

Network Settings
Samsung Wireless LAN Adapter connected.
Press Start to configure your wireless network settings.
SAMSUNG
Start
Cancel
If you want to connect to your wired network, plug in a network cable.

4. In the list of networks, press the ▲ or ▼ button to select a network, and then press **ENTER** ↵ button.

   If the wireless router is set to Hidden (Invisible), you have to select **Add Network** and enter the correct network name and Security key to establish the connection.

5. If the Security screen pop-up appears, go to step 6. If you select the wireless router which does not have wireless security, go to step 7.
6. To set wireless security for the router, enter the Security key(Security or PIN).
   - When you enter the Security key (Security or PIN), use ▲/▼/◄ /► buttons to select number/characters. Press **ENTER** ↵ to enter the characters.
   - You should be able to find the Pass Phrase on one of the set up screens you used to set up your router or modem.
7. The network connection screen appears, and network setting is done.
   - If it fails to set Security key (Security or PIN), select **Retry** or **IP Settings**.
   - If you want to set connection manually, select the **IP Settings**. Refer to following “How to set up manually”.

Wireless Network Setup (Manual)

Use the Manual Network Setup when connecting your TV to a network that requires a Static IP address.

Getting the Network Connection Values

To get the Network connection values on most Windows computers, follow these steps:

1. Right click the Network icon on the bottom right of the screen.
2. In the pop-up menu that appears, click Status.
3. On the dialog that appears, click the Support tab.
4. On the Support Tab, click the Details button. The Network connection values are displayed.

How to set up manually

To set up your TV's cable network connection manually, follow these steps:

1. Follow Steps 1 through 7 in the "How to set up automatically" procedure.
2. Select the **IP Settings** on network connection screen.
3. Set **IP Setting** to **Enter manually**.
4. Press the ▼ button to go to the first entry field.
5. Enter the **IP Address, Subnet Mask, Gateway**, and **DNS Server** values. Use the number buttons to enter numbers and the arrow buttons to move from one entry field to another.
6. When done, select the **OK**.
7. The network connection screen appears, and network setting is done.

Wireless Network Setup (WPS(PBC))

If your router has a WPS(PBC) button, follow these steps:

1. Go to **Network Settings** screen.
2. Select **Start**.
3. The Network function searches for available wireless networks. When done, it displays a list of the available networks.
4. Select the **WPS(PBC)**.
5. Press the WPS(PBC) button on your router within 2 minutes. Your TV automatically acquires all the network setting values it needs and connects to your network.
6. The network connection screen appears, and network setting is done.

If Your TV Fails to Connect to the Internet

Your TV may not be able to connect to the Internet because your ISP has permanently registered the MAC address (a unique identifying number) of your PC or modem, which it then authenticates each time you connect to the Internet as a way of preventing unauthorized access. As your TV has a different MAC address, your ISP can not authenticate its MAC address, and your TV can not connect.

To resolve this problem, ask your ISP about the procedures required to connect devices other than a PC (such as your TV) to the Internet.

If your Internet service provider requires an ID or password to connect to the Internet, your TV may not be able to connect to the Internet. If this is the case, you must enter your ID or password when connecting to the Internet.

The internet connection may fail because of a firewall problem. If this is the case, contact your Internet service provider.

If you cannot connect to the Internet even after you have followed the procedures of your Internet service provider, please contact Samsung Electronics.

■ Wi-Fi Direct

MENU → Network → Wi-Fi Direct → ENTER

Set to connect the TV to wireless mobile devices. Using this function, you can connect wireless mobile devices with your TV directly without a router.

- You can use this function when connecting the Samsung Wireless LAN Adapter.
- It only supports **AllShare Play** function.
- It may not be supported depending on the mobile device.

How to connect the Wi-Fi device to your TV using Wi-Fi Direct function

1. Go to **Wi-Fi Direct** screen. The TV starts to search devices.
2. Turn on the Wi-Fi Direct function on your device. Select the desired device, and then press **ENTER** button.
   - **PBC**: Press the WPS(PBC) button on your device within 2 minutes. Your TV automatically acquires all the network setting values it needs and connects to your network.
   - **PIN**: Input the displayed PIN on your device.

◀ ▶ If you want to disconnect the device, select the connected device, and press the **ENTER** button to select **Disconnect**.

AllShare Settings

MENU → Network → AllShare Settings → ENTER

Set whether to allow a network connected device like a smartphone or tablet to share content or control TV using an application downloaded on your mobile device. For details on set up options, refer to the "Using the DLNA Functions".

Device Name

MENU → Network → Device Name → ENTER

Change the TV's name by keying in a name manually.

A keyboard appears on the screen and you can key in a name for your TV manually using your remote control. For example, if you want to change the name to Samsung TV, press each character using the ▲/▼/◄/► buttons, and then select **Done**.

❑ Setting the Setup

■ Setup

MENU☰ → System → Setup → ENTER↵

Configure the channels and the time when setting up the TV for the first time or when resetting the unit.

- For the detailed information about setting **Setup**, refer to “Setup (Initial Setup)” in User Manual.
- Enter your 4-digit PIN, the default of which is 0-0-0-0.

❑ Setting the Time

■ Time

MENU → System → Time → ENTER

The current time will appear every time you press the **INFO** button.

- **Clock**: Setting the clock is for using various timer features of the TV.

  If you disconnect the power cord, you have to set the clock again.

  Clock Mode: Set up the current time manually or automatically.

  - **Auto**: Set the current time automatically using the time from a digital channel.

    The antenna must be connected in order to set the time automatically.

- **Manual**: Set the current time manually.

Depending on the broadcast station and signal, the auto time set up may not be correct. In this case, set the time manually.

Clock Set: Set the **Date** and **Time**.

Available only when **Clock Mode** is set to **Manual**.

You can set the **Date** and **Time** directly by pressing the number buttons on the remote control.

Time Zone for Brazil, Chile, Ecuador: Select your time zone.

This function is only available when the **Clock Mode** is set to **Auto**.

❑ Using the Sleep Timer

MENU → System → Time → Sleep Timer → ENTER

- **Sleep Timer** TOOLS: Automatically shuts off the TV after a preset period of time. (30, 60, 90, 120, 150 and 180 minutes).

  To cancel the **Sleep Timer**, select **Off**.

❑ Setting the On/Off Timer

MENU → System → Time → On Timer <or> Off Timer → ENTER

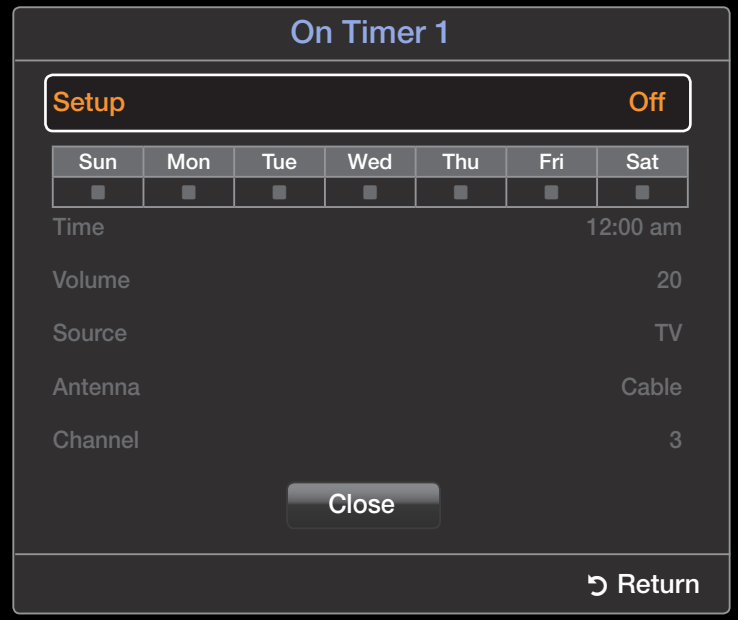
- **On Timer**: Three different on timer settings can be made. You must set the clock first.

  Setup: Select **Off**, **Once**, **Everyday**, **Mon~Fri**, **Mon~Sat**, **Sat~Sun** or **Manual** to set at your convenience. If you select **Manual**, you can set up the day you want to activate the timer.

  The ✓ mark indicates the day you've selected.

  Time: Set the hour, minute, am/pm.

  Volume: Set the desired volume level.



Source: Select **TV** or **USB** content to be played when the TV is turned on automatically. (USB can be selected only when a USB device is connected to the TV)

Antenna (when the **Source** is set to **TV**): Select **Air** or **Cable**.

Channel (when the **Source** is set to **TV**): Select the desired channel.

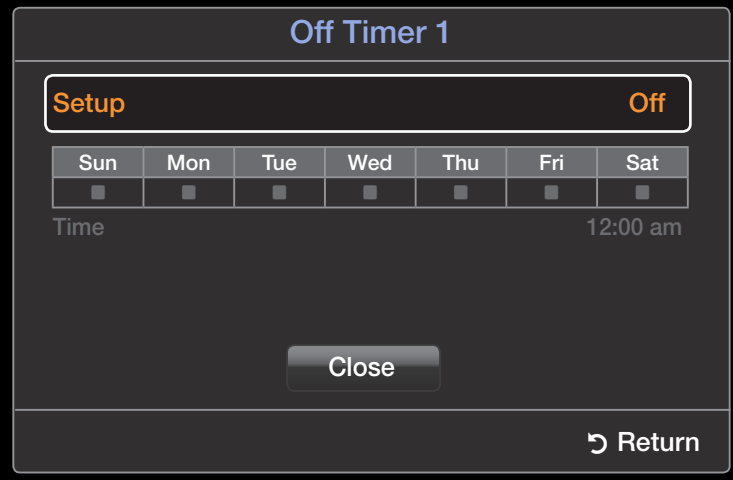
Music / Photo (when the **Source** is set to **USB**): Select a folder in the USB device containing music or photo files to be played when the TV is turned on automatically.

- If there is no music file on the USB device or the folder containing a music file is not selected, the Timer function does not operate correctly.
- When there is only one photo file in the USB, the Slide Show will not play.

- A folder with too long of a name cannot be selected.
- Each USB you use is assigned its own folder. When using more than one of the same type of USB, make sure the folders assigned to each USB have different names.
- It is recommended that you use a USB memory stick and a multi card reader when using **On Timer**.
- The **On Timer** function may not work with USB devices with a built-in battery, MP3 players, or PMPs made by some manufacturers because these devices take a long time to be recognized.

- **Off Timer**: Three different off timer settings can be made. You must set the clock first.

  Setup: Select **Off**, **Once**, **Everyday**, **Mon~Fri**, **Mon~Sat**, **Sat~Sun** or **Manual** to set at your convenience. If you select **Manual**, you can set up the day you want to activate the timer.



  The ✓ mark indicates the day you've selected.

  Time: Set the hour, minute, and am/pm.

❑ Locking Programs

MENU → System → Security → ENTER

■ Security

The PIN input screen appears before the setup screen.

Enter your 4-digit PIN, the default of which is 0-0-0-0. Change the PIN using the **Change PIN** option.

- **Channel Lock (Off / On)**: Lock channels to prevent unauthorized users, such as children, from watching unsuitable program.
- **Program Rating Lock**: Prevent unauthorized users, such as children, from watching unsuitable program with a user defined 4-digit PIN code.

  It is only available in Brazil signal.

- **Change PIN**: The **Change PIN** screen will appear. Choose any 4 digits for your PIN and enter it in the **Enter New PIN**. Re-enter the same 4 digits in the **Confirm New PIN**. When the Confirm screen appears, press the **ENTER** button. Your PIN has been memorized.

  If you forget the PIN code, press the remote control buttons in the following sequence in Standby mode, which resets the PIN to “0-0-0-0” : **MUTE** → 8 → 2 → 4 → **POWER** (on)

❑ Picture In Picture (PIP)

MENU → System → PIP → ENTER

■ PIP TOOLS

You can watch the TV tuner and one external video source simultaneously. **PIP** (Picture-in-Picture) does not function in the same mode.

NOTE

- For PIP sound, refer to the **Sound Select** instructions.
- If you turn the TV off while watching in PIP mode, the PIP window will disappear.
- You may notice that the picture in the PIP window becomes slightly unnatural when you use the main screen to view a game or karaoke.

- PIP Settings

Main picture	Sub picture
Component, HDMI	TV

- **PIP (Off / On)**: Activate or deactivate the PIP function.
- **Air/Cable (Air / Cable)**: Select either **Air** or **Cable** as the input source for the sub-screen.
- **Channel**: Select the channel for the sub-screen.
- **Size** (/): Select a size for the sub-picture.
- **Position** (/ / /): Select a position for the sub-picture.
- **Sound Select (Main / Sub)**: You can choose the desired sound (**Main** or **Sub**) in **PIP** mode.

❑ Economical Solutions

MENU → System → Eco Solution → ENTER

■ Eco Solution

- Energy Saving (Off / Low / Medium / High / Picture Off) TOOLS: This adjust the brightness of the TV in order to reduce power consumption. If you select Picture Off, the screen is turned off, but the sound remains on. Press any button except volume button to turn on the screen.

- **Eco Sensor (Off / On)**: To enhance your power savings; the picture settings will automatically adapt to the light in the room.

  Not available for LED 4 series.

  If you adjust the **Backlight** for LED TV **/ Cell Light** for PDP TV , the **Eco Sensor** will be set to **Off**.

  Min. Backlight for LED TV **/ Min Cell Light** for PDP TV : When **Eco Sensor** is **On**, the minimum screen brightness can be adjusted manually.

  If **Eco Sensor** is **On**, the display brightness may change (become slightly darker in most cases) depending on the surrounding light intensity.

- **No Signal Power Off (Off / 15 min. / 30 min. / 60 min.)**: Sets how quickly the TV switches to standby mode, if no picture is being received.

  Disabled when the PC is in power saving mode.

- **Auto Power Off (Off / On)**: The TV will be automatically turned off when no user operation is received for 4 hours.

  If the **Auto Power Off** option is set to **Off**, the TV will stay on even if no operations are performed on the TV.

❑ Other Features

MENU → System → ENTER

■ Menu Language

Set the menu language.

1. Select **Menu Language** and press the **ENTER** button.
2. Choose desired language and press the **ENTER** button.

   Choose between **English**, **Português** and **Español**.

Caption

(On-Screen Text Messages)

- **Caption (Off / On)**: You can switch the caption function on or off. If captions are not available, they will not be displayed on the screen.

  The Caption feature does not work in Component or HDMI modes.

- **Caption Mode**: You can select the desired caption mode.

  The availability of captions depends on the program being broadcasted.

  CC1~CC4 / Text1~Text4: (analog channels only) The Analog Caption function operates in either analog TV channel mode or when a signal is supplied from an external device to the TV. (Depending on the broadcasting signal, the Analog Caption function may or may not work with digital channels.)

Auto Protection Time for LED TV

- **Auto Protection Time (Off / 2 hours / 4 hours / 8 hours / 10 hours)**: If the screen remains idle with a still image for a certain period of time defined by the user, the screen saver is activated to prevent the formation of ghost images on the screen.

Screen Burn Protection for PDP TV

MENU → System → Screen Burn Protection → ENTER

To reduce the possibility of screen burn, this unit is equipped with screen burn prevention technology. The Time setting allows you to program the time between movement of the picture in minutes.

- **Pixel Shift (Off / On)**: Using this function, you can minutely move pixels on the PDP in horizontal or vertical direction to minimize after image on the screen.

  Optimum condition for pixel shift

	Item	TV / HDMI
Horizontal	0~4	4
Vertical	0~4	4
Time (minute)	1~4 min	4 min

The **Pixel Shift** value may differ depending on the monitor size (inches) and mode.

This function is not available in the **Screen Fit** mode.

- **Auto Protection Time (Off / 10 min. / 20 min. / 40 min. / 1 hour)**: If the screen remains idle with a still image for a certain period of time defined by the user, the screen saver is activated to prevent the formation of ghost images on the screen.
- **Scrolling**: This function removes after-images on the screen by moving all the pixels on the PDP according to a pattern. Use this function when there are remaining after images or symbols on the screen, especially when you displayed a still image on the screen for a long time.

- The after-image removal function has to be executed for a long time (approximately 1 hour) to effectively remove after-images on the screen. If the after-image is not removed after performing the function, repeat the function again.
- Press any key on the remote control to cancel this feature.

- **Side Gray (Light / Dark)**: When you watch TV with the screen ratio set to 4:3, the screen is prevented from any damage by adjusting the white balance on both extreme left and right sides.

General

- **Game Mode (Off / On)**: When connecting to a game console such as PlayStation™ or Xbox™, you can enjoy a more realistic gaming experience selecting the game menu.

  NOTE

  - Precautions and limitations for game mode
    - To disconnect the game console and connect another external device, set **Game Mode** to **Off** in the setup menu.
    - If you display the TV menu in **Game Mode**, the screen shakes slightly.

- **Game Mode** is not available when the input source is set to TV.
- After connecting the game console, set **Game Mode** to **On**. Unfortunately, you may notice reduced picture quality.
- If **Game Mode** is **On**:
  - **Picture Mode** is set to **Standard** and **Sound Mode** is set to **Movie**.

- **Panel Lock (Off / On)**: Lock or unlock all the keys on the panel.
- **Boot Logo (Off / On)**: Display Samsung logo when the TV is turned on.
- **AV Color System (Auto / PAL-M / PAL-N / NTSC)**: Normally the TV can receive image and sound with good quality when in the mode **Auto**. This mode detects the signal color system automatically. In case of some signal reception with color unsatisfactory, select the **AV Color System** Mode to **PAL-M, PAL-N** or **NTSC**.

DivX® Video On Demand

Shows the registration code authorized for the TV. If you connect to the DivX web site and register with 10-digit registration code, you can download the VOD activation file. Once you play it using Media Play, the registration is completed.

For more information on DivX® VOD, visit “http://vod.divx.com”.

❑ Support Menu

MENU → Support → ENTER

■ e-Manual

You can read the introduction and instructions about the TV features stored in your TV.

For the detailed information about e-Manual Screen, refer to “How to view the e-Manual” in User Manual.

Self Diagnosis

- **Picture Test (Yes / No)**: Use to check for picture problems.

  Yes: If the test picture does not appear or there is noise in the test picture, select Yes. There may be a problem with the TV. Contact Samsung's Call Center for assistance.

  No: If the test picture is properly displayed, select No. There may be a problem with your external equipment. Please check your connections. If the problem persists, refer to the external device's user manual.

- **Sound Test (Yes / No)**: Use the built-in melody sound to check for sound problems.

  If you hear no sound from the TV's speakers, before performing the sound test, make sure **Speaker Select** is set to **TV Speaker** in the **Sound** menu.

  The melody will be heard during the test even if **Speaker Select** is set to **External Speaker** or the sound is muted by pressing the **MUTE** button.

  Yes: If you can hear sound only from one speaker or not at all during the sound test, select Yes. There may be a problem with the TV. Contact Samsung's Call Center for assistance.

  No: If you can hear sound from the speakers, select No. There may be a problem with your external equipment. Please check your connections. If the problem persists, refer to the external device's user manual.

- **Signal Information**: (digital channels only) An HD channel's reception quality is either perfect or the channels are unavailable. Adjust your antenna to increase signal strength.
- **Reset**: Reset all settings to the factory defaults except network settings.
  - The PIN input screen appears before the setup screen.
  - Enter your 4-digit PIN. Change the PIN using the **Change PIN** option.
- **Troubleshooting**: If the TV seems to have a problem, refer to this description.
  - If none of these troubleshooting tips apply, contact the Samsung customer service center.

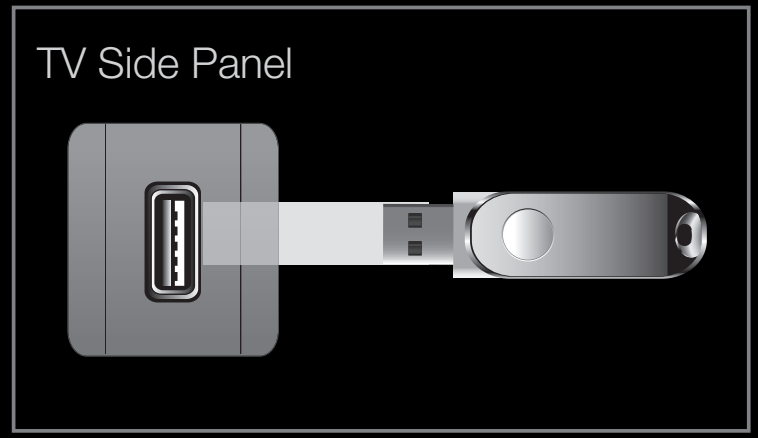
Software Upgrade

Software Upgrade can be performed by downloading the latest firmware from “www.samsung.com”, to a USB memory device.

Current Version-the software already installed in the TV.

Installing the Latest Version

- **By USB**: Insert a USB drive containing the firmware upgrade file, downloaded from www.samsung.com, into the TV. Please be careful not to disconnect the power or remove the USB drive until upgrades are complete. The TV will be turned off and on automatically after completing the firmware upgrade. When software is upgraded, video and audio settings you have made will return to their default settings. We advise you to write down your settings so that you can easily reset them after the upgrade.



* The placement of the USB port may differ depending on the model.

- **Online** for PDP 490 series: Upgrade the software using the Internet.

  First, configure your network. For detailed procedures on using the Network Setup, refer to the **Network Settings** instructions.

  If the Internet connection does not operate properly, the connection may be broken. Please retry downloading. If the problem persists, download by USB and upgrade.

- **Alternative Software**: Replace the current software with the alternative.

- **Standby Mode Upgrade(Off / On)** for PDP 490 series: A manual upgrade will be automatically performed at selected time. Since the power of the unit is turned on internally, the screen may be turned on slightly for the product. This phenomenon may continue for more than 1 hour until the software upgrade is complete.

Contact Samsung

View this information when your TV does not work properly or when you want to upgrade the software. You can find information regarding our call centers, and how to download products and software.

Contents Home

You can enjoy useful and various contents.

❑ Using the 3D function for PDP 490 series

■ 3D

MENU → Picture → 3D → ENTER

This exciting new feature enables you to view 3D content. To fully enjoy this feature, you must purchase a pair of Samsung 3D Active Glasses to view 3D video. Samsung 3D Active Glasses are sold separately. For more detailed purchasing information, contact the retailer where you purchased this TV.

"Full HD 3D Glasses™" Logo indicates compatibility between display products and 3D Glasses which are compliant with the "Full HD 3D Glasses™" format, and does not indicate picture quality of display products.

Viewing TV using the 3D function

IMPORTANT HEALTH AND SAFETY INFORMATION FOR 3D PICTURES.

Read and understand the following safety information before using the TV's **3D** function.

⚠ WARNING

- Some viewers may experience discomfort while viewing 3D TV such as dizziness, nausea and headaches. If you experience any such symptom, stop viewing 3D TV, remove 3D Active Glasses and rest.
- Watching 3D images for an extended period of time may cause eye strain. If you feel eye strain, stop viewing 3D TV, remove your 3D Active Glasses and rest.

- A responsible adult should frequently check on children who are using the 3D function. If there are any reports of tired eyes, headaches, dizziness, or nausea, have the child stop viewing 3D TV and rest.
- Do not use the 3D Active Glasses for other purposes (such as general eyeglasses, sunglasses, protective goggles, etc.)
- Do not use the 3D function or 3D Active Glasses while walking or moving around. Using the 3D function or 3D Active Glasses while moving around may result in injuries due to running into objects, tripping, and/or falling.

- **3D Mode**: Select the 3D input format.

  If you want to feel the 3D effect fully, please wear the 3D Active Glasses first, and then select 3D Mode from the list below that provides the best 3D viewing experience.

  When watching 3D images, turn on 3D Active Glasses.

3D Mode		Operation
Off	Off	Turns the 3D function off.
2D→3D	2D → 3D	Changes a 2D image to 3D.
	Side by Side	Displays two images next to each other.
	Top & Bottom	Displays one image above another.

Some file format may not be supported the "2D → 3D".

When you watch 3D images under flickering lighting such as a fluorescent lamp (50Hz ~ 60Hz) or a 3 wavelength lamp, you may notice some screen flickering. If this occurs, dim or turn off the light.

- **3D Perspective (-5 ~ +5)**: Adjust overall 3D perspective of on-screen image.
- **Depth (1~10)**: Adjust overall depth.
- **L/R Change (L/R Image / R/L Image)**: Swap the left and right pictures.
- **3D → 2D (Off / On)**: Displays the image for the left eye only.

This function is deactivated when 3D Mode set to "

" or "Off".

Support resolution (16:9 only)

- HDMI

Source	Resolution	Frequency (Hz)
/	1280 x 720p	59.94 / 60 Hz
	1920 x 1080i	59.94 / 60 Hz
	1920 x 1080p	23.98 / 24 / 29.97 / 30 / 59.94 / 60 Hz
Frame Packing	1280 x 720p	59.94 / 60 Hz
	1920 x 1080i	59.94 / 60 Hz
	1920 x 1080p	23.98 / 24 / 29.97 / 30 Hz

- Components & DTV

Source	Resolution	Frequency (Hz)
Components	1280 x 720p	59.94 / 60 Hz
	1920 x 1080i	59.94 / 60 Hz
	1920 x 1080p	23.98 / 24 / 29.97 / 30 / 59.94 / 60 Hz
DTV	1280 x 720p	59.94 / 60 Hz
	1920 x 1080i	59.94 / 60 Hz

- Videos / Photos (In **AllShare Play**)

  Refer to "Supported Subtitle and AllShare Play file formats" in the Other Information section.

How to watch the 3D image

- Method 1

  Some 3D modes may not be available depending on the format of the image source.

  To watch in 3D, wear 3D Active Glasses and press the power button on the glasses.

  1. Press the **MENU** button on your remote, use the ▲ or ▼ button to select **Picture**, and then press the **ENTER** button.
  2. Use the ▲ or ▼ button to select **3D**, and then press the **ENTER** button.

3. Use the ▲ or ▼ button to select **3D Mode**, and then press the **ENTER** button.
4. Using the ◄ or ► buttons on your remote control, select the **3D Mode** of the image you want to view.

- Method 2

1. Press the 3D button on your remote, and then you can view the **3D** image.
2. If you want to change 3D options (such as **3D Perspective**), press the **MENU** button on your remote, and then select **Picture**.
3. Go to Step 3 in the “Method 1”, and follow the directions from that point on.

   To exit the **3D** mode, press the 3D button on your remote again.

Before using 3D function

NOTE

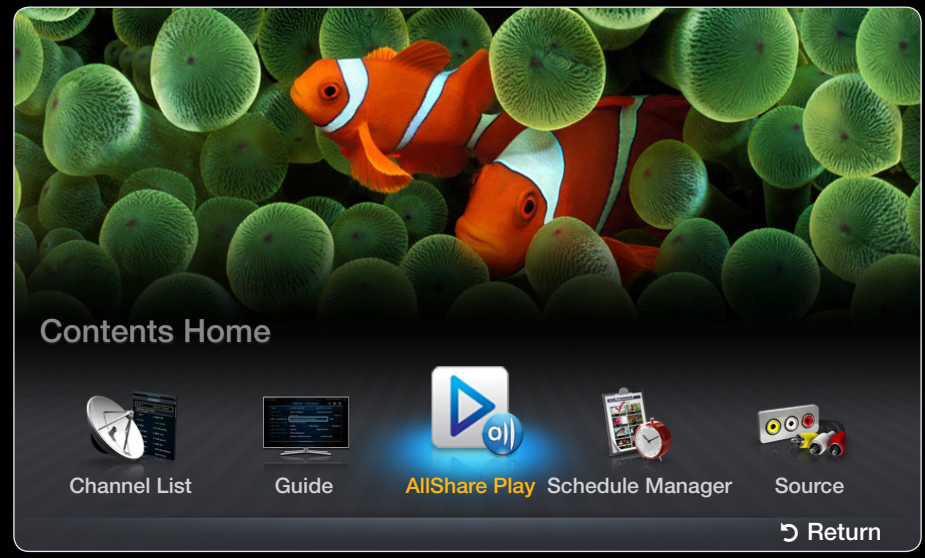
- **3D Mode** is set to **Off** automatically when you access **AllShare Play** or **e-Manual** functions.
- **3D Mode** is set to memorized configuration value automatically, when changing the input source.
- Some **Picture** functions are disabled in **3D** mode.
- **PIP** is not supported in **3D** mode.
- 3D Active Glasses from Samsung's previous product (IR type) or other manufacturers not be supported.
- When the TV is initially powered on, may take some time until the 3D display is optimized.

- The 3D Active Glasses may not work properly if there is any other 3D product or electronic devices turned on near the glasses or TV. If there is a problem, keep other electronic devices as far away as possible from the 3D Active Glasses.
- Be sure to stay within the viewing angle and optimum TV viewing distance when watching 3D pictures.
- Otherwise, you may not be able to enjoy proper 3D effects.
- The ideal viewing distance should be three times or more the height of the screen. We recommend sitting with viewer's eyes on a level with the screen.
- If you can not play 3D videos in some of the BD players, take out the disk from player and put it again, or restart the BD player.

❑ Using the Media Contents

Enjoy photos, music and movie files saved on a USB Mass Storage Class (MSC) device.

1. Press the **CONTENT** button to select **Media Play / AllShare Play** for PDP 490 series.
2. Press ▲/▼ button to select desired menu (**Videos**, **Photos**, **Music**), then press the **ENTER** ↵ button.
3. Press ▲/▼ button to select desired device, then press the **ENTER** ↵ button again.

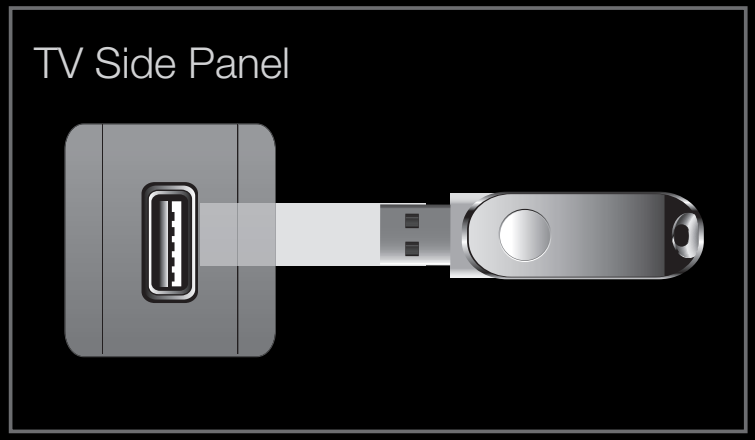


* The displayed image may differ depending on the model.

❑ Connecting a USB Device

1. Turn on your TV.
2. Connect a USB device containing photo, music and movie files to the USB port on the side of the TV.
3. When USB is connected to the TV, popup window appears. You can select the **Videos, Photos** or **Music** directly.

It might not work properly with unlicensed multimedia files.



* The placement of the USB port may differ depending on the model.

Need-to-Know List before using Media Contents

- MTP (Media Transfer Protocol) is not supported.
- The file system supports NTFS (Read Only), FAT16 and FAT32.
- Certain types of USB Digital camera and audio devices may not be compatible with this TV.
- Media Contents only supports USB Mass Storage Class (MSC) devices. MSC is a Mass Storage Class Bulk-Only Transport device. Examples of MSC are Thumb drives, Flash Card Readers (USB HUB are not supported). Devices should be connected directly to the TV's USB port.
- Before connecting your device to the TV, please back up your files to prevent them from damage or loss of data. SAMSUNG is not responsible for any data file damage or data loss.
- The HDD (Hard Disk Drive) connected to USB is not supported.
- Do not disconnect the USB device while it is loading.

- The higher the resolution of the image, the longer it takes to display on the screen.
- The maximum supported JPEG resolution is 15360 x 8640 pixels.
- For unsupported or corrupted files, the “Not Supported File Format” message is displayed.
- MP3 files with DRM that have been downloaded from a non-free site cannot be played. Digital Rights Management (DRM) is a technology that supports the creation, distribution and management of the content in an integrated and comprehensive way, including the protection of the rights and interests of the content providers, the prevention of the illegal copying of contents, as well as managing billings and settlements.
- A USB device that requires high power (more than 500mA 5V) may not be supported.
- If the TV has been no input during time set in **Auto Protection Time**, the Screensaver will run.

- The power-saving mode of some external hard disk drives may be released automatically when connected to the TV.
- If a USB extension cable is used, the USB device may not be recognized or the files on the device may not be read.
- If a USB device connected to the TV is not recognized, the list of files on the device is corrupted or a file in the list is not played, connect the USB device to the PC, format the device and check the connection.
- If a file deleted from the PC is still found when Media Contents is run, use the “Empty the Recycle Bin” function on the PC to permanently delete the file.
- Media Contents only supports sequential jpeg format.
- The scene search and thumbnail functions are not supported in the **Videos**.
- If the number of files and folders saved on a USB storage device is approximately over 4000, the files and folders may not appear and some folders may not be opened.

Disconnecting a USB Device

- Method 1: Using the **SOURCE** button.
  1. Press the **SOURCE** button.
  2. Select a desired USB device, and then press the **TOOLS** button. The **Tools** menu appears.
  3. Select **Safely Remove USB**, and then wait until the selected USB device is disconnected. You can remove a USB device from the TV.

- Method 2: Using the **Media Play / AllShare Play** for PDP 490 series home screen.

  1. Go to **Media Play / AllShare Play** for PDP 490 series home screen.
  2. Select any category, and then press the **ENTER** button.
  3. Select a desired USB device, and then press the **TOOLS** button. The **Tools** menu appears.
  4. Select **Safely Remove USB**, and then wait until the selected USB device is disconnected. You can remove a USB device from the TV.

To remove a USB device from the TV, we recommend use **Safely Remove USB** function.

❑ Connecting to the PC through network for PDP 490 series

You can play pictures, music and videos saved on your PC through a network connection in the **AllShare Play** mode over your TV.

If you want to use **AllShare Play** to play files saved on your PC over your TV, you should download “AllShare PC Software” and users manual from “www.samsung.com”.

1. For more information on how to configure your network, refer to ‘Network Connection’.
   – You are recommended to locate both TV and PC in same subnet. The first 3 parts of the IP address of the TV and PC should be the same and only the last part (the host address) should be changed. (e.g. IP Address: 123.456.789.**)

2. Using a LAN cable, connect between the external modem and the PC onto which the AllShare PC Software program will be installed.
   – You can connect the TV to the PC directly without connecting it through a Sharer (Router).

Functions that are not supported when connecting to a PC through a network:

- The **Background Music On** and **Background Music Setting** functions.
- The ◀◀ (REW) or ▶▶ (FF) button while a movie is playing.

The DivX DRM, Multi-audio, embedded caption does not supported.

AllShare PC Software should be permitted by the firewall program on your PC.

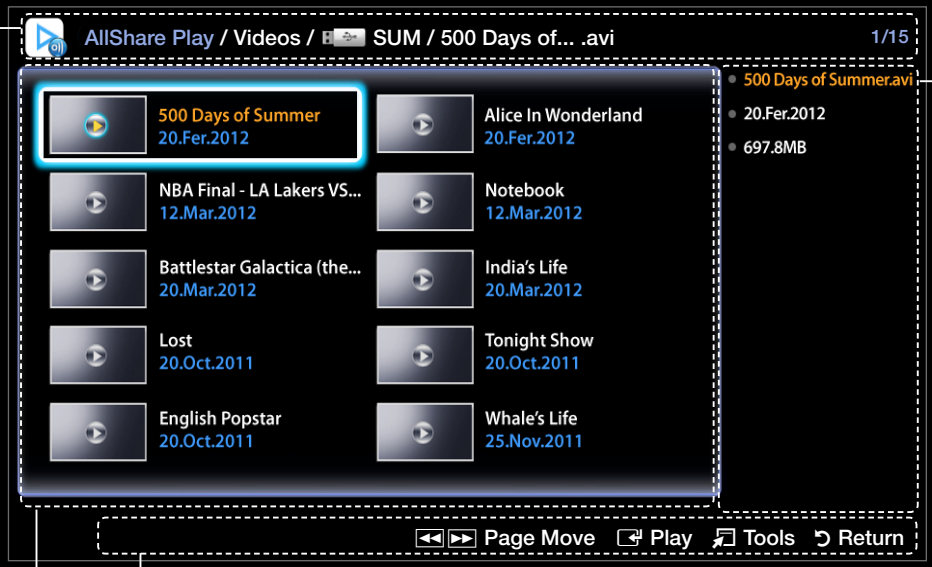
- When you use **AllShare Play** mode through a network connection, according to functions of the provided server:
  - The sorting method may vary.
  - The ◄◄ (REW), ►► (FF) or ❚❚ (Pause) buttons may not work depending on the content information.
- If you experience any file stuttering issue while playing a video over a wireless network, we recommend using a wired network.

❑ Screen Display

Move to the desired file using the ◄/►/▲/▼ buttons and then press the **ENTER** ↵ or ► (Play) button. The file is played. The screen may differ depending on the way to enter the screen.

* The displayed image may differ depending on the model.

Information:
You can ascertain the selected device name, contents mode, folder/ file name, page.



Information:
You can ascertain the name, size and created date of the selected file.

File List Section:
You can confirm the files and groups that are sorted by category.

Operation Buttons:
- ↵ **Play**: Play the selected file.
- **Tools**: Displays the option menu.
- ↩ **Return**: Move to the previous step.
- ◄◄ ►► /B C **Page Move**: Move to up or down page.

Videos

Playing Video

1. Press the ◄/►/▲/▼ button to select the desired video in the file list.
2. Press the **ENTER** button or ► (Play) button.
   - The selected file name is displayed on the top with its playing time.
   - If video time information is unknown, play time and progress bar are not displayed.
   - During video playback, you can search using ◄ and ► button.
   - You can use (◄◄) (REW) and (►►) (FF) buttons during playback.

In this mode, you can enjoy movie clips contained on a Game, but you cannot play the Game itself.

- Supported Subtitle Formats
  - External

Name	File extension
MPEG-4 timed text	.ttxt
SAMI	.smi
SubRip	.srt
SubViewer	.sub
Micro DVD	.sub or .txt
SubStation Alpha	.ssa
Advanced SubStation Alpha	.ass
Powerdivx	.psb

  - Internal

Name	Container	Format
Xsub	AVI	Picture Format
SubStation Alpha	MKV	Text Format
Advanced SubStation Alpha	MKV	Text Format
SubRip	MKV	Text Format
MPEG-4 Timed text	MP4	Text Format

- Supported Video Formats

File Extension	Container	Video Codec	Resolution	Frame rate (fps)	Bit rate (Mbps)	Audio Codec
*.avi *.mkv *.asf *.wmv *.mp4 *.3gp *.vro *.mpg *.mpeg *.ts *.tp *.trp *.mov *.flv *.vob *.svi *.m2ts *.mts *.divx	AVI MKV ASF MP4 3GP VRO VOB PS TS	DivX 3.11/4.x/5.x/6.x	1920 x 1080	6~30	30	AC3 LPCM ADPCM (IMA, MS) AAC HE-AAC WMA DD+ MPEG(MP3) DTS Core G.711 (A-Law, µ-Law)
		MPEG4 SP/ASP				
		H.264 BP/MP/HP				
		Motion JPEG	640 x 480		8	
		Window Media Video v9	1920 x 1080		30	
		MPEG2				
		MPEG1				

Other Restrictions

- Video content will not play, or not play correctly, if there is an error in the content or the container.
- Sound or video may not work if the contents have a standard bit rate/frame rate above the compatible Frame/sec listed in the table seen on last page.
- If the Index Table is in error, the Seek (Jump) function is not supported.
- When playing the video through network, it may not work depending on the network status. When you play video over a network connection, the video may not be played smoothly. for PDP 490 series
- Some USB/digital camera devices may not be compatible with the player.
- The menu can be displayed late if the video is over 10Mbps(bit rate).

Video decoder	Audio decoder
● Supports up to H.264, Level 4.1 ● H.264 FMO / ASO / RS, VC1 SP / MP / AP L4 and AVCHD are not supported. ● GMC is not supported.	● WMA 10 Pro supports up to 5.1 channel and M2 profile. (LBR mode of M0 is not supported) ● WMA lossless audio is not supported.

Photos

Viewing a Photo (or Slide Show)

1. Press the ◄/►/▲/▼ button to select the desired photo in the file list.
2. Press the **ENTER** ↵ button.

- When you press the ► (Play) button in the file list, slide show will be started immediately.
- During the slide show, all files in the file list will be displayed in order.
- During the slide show, you can adjust the slide show speed using ◄◄ (REW) or ►► (FF) button.
- You can move to other file using ◄ or ► button.

- Music files can be automatically played during the slide show if the **Background Music On** is set.

- Supported Photo Formats

File Extension	Type	Resolution
*.jpg	JPEG	15360x8640
*.bmp	BMP	1920x1080
*.mpo	MPO	15360x8640

Music

Playing Music

1. Press the ◄/►/▲/▼ button to select the desired Music in the file list.
2. Press the **ENTER** button or ► (Play) button.
   – You can use ◄◄ (REW) and ►► (FF) buttons during playback.

Only displays the files with supported music file extension. Other file extensions are not displayed, even if they are saved on the same USB device.

If the sound is abnormal when playing music files, adjust the **Equalizer** in the **Sound** menu. (An over-modulated music file may cause a sound problem.)

Using the playback menu

– Press the ◄/► button to select the desired menu.

- **Play / Pause**: You can start or stop a music. Alternatively, the ► or II button on the remote.
- **Repeat Mode (Off / One Song / All)**: You can play music files repeatedly.
- **Shuffle Mode (Off / On)**: You can play the music randomly.
- **Sound Mode (Standard / Music / Movie / Clear Voice / Amplify)**: You can adjust the sound setting.

Supported Music Formats

File Extension	Type	Codec	Remark
*.mp3	MPEG	MPEG1 Audio Layer 3	
*.m4a *.mpa *.aac	MPEG4	AAC	
*.flac	FLAC	FLAC	Seek is not supported. Supports up to 2ch.
*.ogg	OGG	Vorbis	Supports up to 2ch.
*.wma	WMA	WMA	WMA 10 Pro supports up to 5.1 channel and M2 profile. (LBR mode of M0 is not supported)

❑ Media Contents - Additional Functions

Playing the selected Videos/Music/Photos files

1. Press the **TOOLS** button at each main screen and select **Selection Play**.
2. Select the desired files.
   - The check box appears to the left of the selected files.
3. Press the ► button to select **Play**, then press the **ENTER** ↵ button.
   - You can select or deselect all files pressing the **Select All / Deselect All**.

◄ ►

Videos/Music/Photos Play Option menu

During playing a file, press the **TOOLS** button.

Category	Operation	Videos	Photos	Music
Title Search	You can move the other file directly.	✓		
Time Search	You can search the video using ◄ and ► button at one minute interval or entering the number directly. ✎ It may not be supported depending on the input source.	✓		
Repeat Mode	You can play movie files repeatedly.	✓		
Picture Size	You can adjust the picture size to your preference.	✓		
Picture Mode	You can adjust the picture setting.	✓	✓	

Category	Operation	Videos	Photos	Music
Sound Mode	You can adjust the sound setting.	✓	✓	
Audio Language	You can change the audio language if the video has more than one language.	✓		
Subtitle	You can set subtitles on/off.	✓		
Subtitle Settings	You can play the video with subtitles. This function only works if the subtitles are the same file name as the video.	✓		
Start Slide Show / Stop Slide Show	You can start or stop a slide show.		✓	

Category	Operation	Videos	Photos	Music
Slide Show Speed	You can select the slide show speed during the slide show.		✓	
Background Music On / Background Music Off	You can set on/off background music when watching a slide show.		✓	
Background Music Setting	You can select background music when watching a slide show.		✓	
Zoom	You can zoom into images in full screen mode.		✓	

Category	Operation	Videos	Photos	Music
Rotate	You can rotate images in full screen mode.		✓	
Edit Playlist	You can edit the play list when playing the desired music.			✓
Selection Play	Select and play multiple files.			✓
Information	You can see detailed information about the played file.	✓	✓	✓

❑ Using the DLNA Functions for PDP 490 series

You can play media contents including videos, photos and music saved on your mobile phones or the other devices (such as your PC) by controlling them on the TV via the network.

- For more information, visit “www.samsung.com” or contact the Samsung call center. Mobile devices may need additional software installation. For details, refer to each device’s user’s guide.
- If your Samsung TV connects to a non-Samsung DLNA server, a compatibility issue may occur during video playback.

- By connecting your Samsung TV to a network via AllShare Play, you can use Samsung's original functions as follows:
  - Playback of various video formats (DivX, MP4, 3GPP, AVI, ASF, MKV, etc.)
  - Video thumbnail feature
  - Bookmark function (to resume video playback)
  - Auto-chaptering (scene navigation)
  - Digital content management
  - Compatibility with various subtitle formats (SRT, SMI, SUB, TXT, TTXT)
  - And many others
- To use the original DLNA functions of Samsung fully, it is recommended that you use the AllShare Play software provided with your TV.

Playing the media contents saved on the devices

1. Connect the mobile phone or other devices which support **AllShare Play** function, and then play the media contents of each device. The popup screen appears on the bottom of your TV.
2. Select the **Allow** to accept the connected devices. The media contents of the devices can be playing on your TV.

   You can find the allowed devices on the **AllShare Settings.**

Using the **AllShare Play** function, play the media contents of the devices connected to DLNA function.

1. Press the **CONTENT** button to select **AllShare Play**.
2. Press ▲/▼ button to select desired menu (**Videos**, **Photos**, **Music**), then press the **ENTER** ↵ button.
3. When the DLNA device is selected, press the **ENTER** ↵ button again.
4. Press the ◄/►/▲/▼ button to select the desired file.
5. Press the **ENTER** ↵ button.

NOTE

- Contents may not be played on your TV depending on their resolution and format.
- The **ENTER** and ◄/► buttons may not work depending on the type of media content.
- Using the mobile device, you can control the media playing. For details, refer to each mobile's user's guide.

Using the AllShare Settings function

MENU → Network → AllShare Settings → ENTER

Shows a list of mobile phones or connected devices which have been set up with this TV for using the **AllShare Settings** function.

The **AllShare Settings** function is available in all devices which support DLNA DMC.

- **Allow / Deny**: Allows/Blocks the devices.
- **Delete**: Deletes the devices from the list.

  This function only deletes the name of the devices from the list. If the deleted device is turned on or tries to connect to the TV, it may appear on the list again.

❑ Troubleshooting

If the TV seems to have a problem, first try this list of possible problems and solutions. If none of these troubleshooting tips apply, visit samsung.com, then click on Support, or call Samsung customer service.

Issues	Solutions and Explanations
Poor picture	First of all, please perform the **Picture Test** and confirm that your TV is properly displaying the test image. • go to **MENU** - **Support - Self Diagnosis - Picture Test** If the test image is properly displayed, the poor picture may be caused by the source or signal.

Issues	Solutions and Explanations
The TV image does not look as good as it did in the store.	• If you have an analog Cable/Set top box, upgrade to a digital set top box. Use HDMI or Component cables to deliver HD (high definition) picture quality. • Cable/Satellite subscribers: Try HD stations from the channel line up. • Air/Cable Antenna connection: Try HD stations after performing Auto program. Many HD channels are up scaled from SD(Standard Definition) contents. • Adjust the Cable/Set top box video output resolution to 1080i or 720p.

Issues	Solutions and Explanations
The picture is distorted: macroblock error, small block, dots, pixelization.	• Compression of video contents may cause picture distortion, especially in fast moving pictures such as sports and action movies. • Low signal level can cause picture distortion. This is not a TV problem. • Mobile phones used close to the TV (up to 3.3 ft) may cause noise in picture on analog and digital TV.
Color is wrong or missing.	• If you're using component connection, make sure the component cables are connected to the correct jacks. Incorrect or loose connections may cause color problems or a blank screen.

Issues	Solutions and Explanations
There is poor color or brightness.	• Adjust the Picture options in the TV menu. (go to **Picture Mode / Color / Brightness / Sharpness**) • Adjust Energy Saving option in the TV menu (go to **MENU** - **System - Eco Solution - Energy Saving**) • Try resetting the picture to view the default picture setting. (go to **MENU** - **Picture - Reset Picture**)
There is a dotted line on the edge of the screen.	• If the picture size is set to **Screen Fit**, change it to **16:9**. • Change cable/Set top box resolution.
The picture is black and white.	• If you are using an AV composite input, connect the video cable (yellow) to the Green jack of component input 1 on the TV.

Issues	Solutions and Explanations
When changing channels, the picture freezes or is distorted or delayed.	• If connected to a cable box, please try to reset it. (reconnect the AC cord and wait until the cable box reboots. It may take up to 20 minutes) • Set output resolution of the cable box to 1080i or 720p.
Sound Problem	• First of all, please perform the **Sound Test** to confirm that your TV audio is properly operating. • go to **MENU** - **Support - Self Diagnosis - Sound Test** • If the audio is OK, the sound problem may be caused by the source or signal.
There is no sound or the sound is too low at maximum volume.	• Please check the volume of the device (Cable/Sat Box, DVD, Blu-ray etc) connected to your TV.

Issues	Solutions and Explanations
The picture is good but there is no sound.	• Set the **Speaker Select** option to **TV Speaker** in the **Sound** menu. • If you are using an external device, check the device's audio output option (ex. you may need to change your cable box's audio option to HDMI when you have a HDMI connected to your TV). • If you are using a DVI to HDMI cable, a separate audio cable is required. • Reboot the connected device by reconnecting the device's power cable.
The speakers are making an inappropriate noise.	• Check the cable connections. Make sure a video cable is not connected to an audio input. • For Antenna or Cable connections, check the signal information. Low signal level may cause sound distortion. • Perform the **Sound Test** as explained above.

Issues	Solutions and Explanations
No Picture, No Video	
The TV will not turn on.	• Make sure the AC power cord is securely plugged into the wall outlet and the TV. • Make sure the wall outlet is working. • Try pressing the **POWER** button on the TV to make sure the problem is not the remote control. If the TV turns on, refer to 'Remote control does not work' below.
The TV turns off automatically.	• Ensure the **Sleep Timer** is set to **Off** in the **System** menu. • If your PC is connected to the TV, check your PC power settings. • Make sure the AC power cord is plugged in securely to the wall outlet and the TV. • When watching TV from an antenna or cable connection, the TV will turn off after 10 - 15 minutes if there is no signal.
You can not play 3D videos in some of the BD players.	• Take out the disk from player and put it again, or restart the BD player.

Issues	Solutions and Explanations
There is no picture/video	• Check cable connections. (remove and reconnect all cables connected to the TV and external devices). • Set your external device's (Cable/Set top box, DVD, Blu-ray etc) video outputs to match the connections to the TV input. For example, if an external device's output is HDMI, it should be connected to an HDMI input on the TV. • Make sure your connected devices are powered on. • Be sure to select the TV's correct source by pressing the **SOURCE** button on the remote control. • Reboot the connected device by reconnecting the device's power cable.

Issues	Solutions and Explanations
Antenna(Air / Cable) Connection	
The TV is not receiving all channels.	• Make sure the coaxial cable is connected securely. • Please try **Auto Program** to add available channels to the channel list. go to **MENU** - **Channel - Auto Program** then select **Auto** and make sure the correct Cable TV signal type is set in the menu. • Verify the Antenna is positioned correctly.
No Caption on digital channels.	• Check **Caption** setup menu. • Some channels may not have caption data.
The picture is distorted: macroblock, error, small block, dots, pixelization.	• Compression of video contents may cause picture distortion, especially on fast moving pictures such as sports and action movies. • A low signal can cause picture distortion. This is not a TV problem.

Issues	Solutions and Explanations
Network Connection for PDP 490 series	
The wireless network connection failed.	• Samsung Wireless LAN adapter is required to use a wireless network. • Make sure the TV is connected to a wireless IP sharer (Router).
Software Upgrade over the network fails.	• Try **Network Settings** in **Network** menu. • If you have latest SW version, SW upgrade will not proceed.

Issues	Solutions and Explanations
Others	
Purple/green rolling horizontal bars and buzzing noise from the TV speakers with Component cable connection.	• Remove the left and right audio connections from the set-top-box. If the buzzing stops, this indicates that the set-top-box has a grounding issue. Replace the Component video cables with an HDMI connection.
The picture will not display in full screen.	• HD channels will have black bars on either side of the screen when displaying up scaled SD (4:3) contents. • Black bars on Top & Bottom will be shown on movies that have aspect ratios different from your TV. • Adjust picture size option on your external device or TV to full screen.

Issues	Solutions and Explanations
Plasma TV is making humming noise. for PDP TV	• Plasma TVs typically make a soft humming sound. This is normal. It's caused by the electrical charges that are used to create the images on the screen. • If the humming sound is loud, you may have set the brightness on the TV too high. Try setting the brightness lower. • You can also have loud humming if the back of your Plasma TV is too close to a wall or other hard surface. Also try rerouting your connection cables. • Improper installation of wall mount can create excessive noise.

Issues	Solutions and Explanations
Image Retention (Burn In) Issue. for PDP TV	• To minimize the possibility of screen burn, this unit is equipped with Pixel Shift screen burn reduction technology. Pixel Shift lets you set the picture so it moves slightly up and down (Vertical Line) and side to side (Horizontal Dot). The regular, slight movement of the picture reduces screen burn in.
The remote control does not work.	• Replace the remote control batteries with correct polarity (+/–). • Clean the transmission window located on the top of the remote control. • Try pointing the remote control directly at the TV from 5~6 feet away.
The cable/set top box remote control does not turn the TV on or off, or adjust the volume.	• Program the Cable/Set top box remote control to the operate the TV. Refer to the Cable/Set top box user manual for SAMSUNG TV code.

Issues	Solutions and Explanations
A “**Mode Not Supported**” message appears.	• Check the supported resolution of the TV and adjust the external device’s output resolution accordingly. Refer to resolution settings in this manual.
Caption on TV menu is greyed out.	• **Caption** can not be selected in the TV menu when connected via HDMI or Component. • **Caption** must be activated on the external device.
There is a plastic smell from the TV.	• This smell is normal and will dissipate over time.
TV **Signal Information** is unavailable in the **Self Diagnosis** Test menu.	• This function is only available with digital channels from an Antenna / RF / Coax connection.

Issues	Solutions and Explanations
TV is tilted to the right or left side.	• Remove the stand base from the TV and reassemble it.
The **Channel** menu is grey out (unavailable).	• The **Channel** menu is only available when the TV source is selected.
Your settings are lost after 30 minutes or every time the TV is turned off.	• If TV is in the **Store Demo** mode, it will reset audio and picture settings every 30 minutes. Please change from **Store Demo** mode to **Home Use** mode in the **Setup** procedure. Press the **SOURCE** button to select **TV** mode, go to **MENU** → **System** → **Setup** → **ENTER**↵.
You have intermittent loss of audio or video.	• Check the cable connections and reconnect them. • Loss of audio or video can be caused by using overly rigid or thick cables. Make sure the cables are flexible enough for long term use. If mounting the TV to the wall, we recommend using cables with 90 degree connectors.

Issues	Solutions and Explanations
The **PIP** menu is not available.	• **PIP** functionality is only available when you are using a HDMI or components source.
You see small particles when you look closely at the edge of the frame of the TV.	• This is part of the product's design and is not a defect.
POP (TV's internal banner ad) appears on the screen.	• Select **Home Use** under **Setup** mode. For details, refer to **Setup** (Initial Setup).
The message "**This file may not be playable properly.**" appears.	• This may appear because of high bit rate of content. Content generally will play but could experience some playability issue.

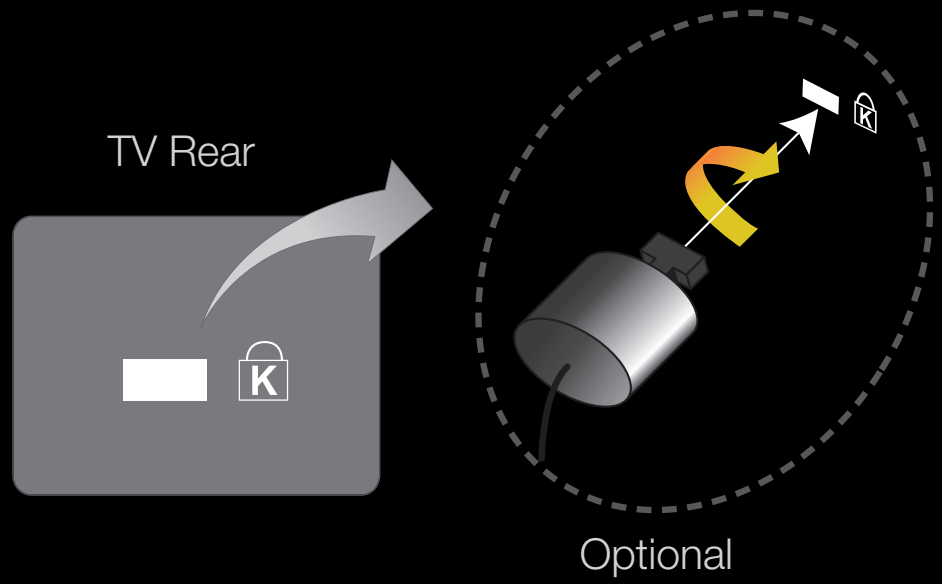
❑ Anti-theft Kensington Lock

The Kensington Lock is not supplied by Samsung. It is a device used to physically fix the system when using it in a public place. The appearance and locking method may differ from the illustration depending on the manufacturer. Refer to the manual provided with the Kensington Lock for additional information on proper use.

- Please find a "🔒" icon on the rear of the TV. A kensington slot is beside the "🔒" icon.
- The position and color may differ depending on the model.

To lock the product, follow these steps:

1. Wrap the Kensington lock cable around a large, stationary object such as desk or chair.



2. Slide the end of the cable with the lock attached through the looped end of the Kensington lock cable.
3. Insert the locking device into the Kensington slot on the product.
4. Lock the lock.

NOTE

- These are general instructions. For exact instructions, see the User manual supplied with the locking device.
- The locking device has to be purchased separately.
- The location of the Kensington slot may be different depending on the TV model.

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